Analytical Data Package Prepared For

Fluor Handord

Radiochemical Analysis By

STL Richland STLRL

2800 G.W. Way, Richland Wa, 99354, (509)-375-3131.

Data Package Contains _____ Pages

Report Nbr: 35704

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
 W05172	107-027	B1M6K6	J7E040299-1	JWA5N1AA	9JWA5N10	7129613
	S07-004	B1MRD9	J7E040306-1	JWA581AA	9JWA5810	7129620
		B1MRD9	J7E040306-1	JWA581AC	9JWA5810	7129617
		B1MRD9	J7E040306-1	JWA581AD	9JWA5810	7129618
		B1MRD9	J7E040306-1	JWA581AE	9JWA5810	7129613
	W07-005	B1N4J6	J7E040342-1	JWCG11AA	9JWCG110	7129619
		B1N4J6	J7E040342-1	JWCG11AD	9JWCG110	7129616
		B1N4J6	J7E040342-1	JWCG12AC	9JWCG120	7171388
		B1N4L5	J7E040342-2	JWCHW1A	9JWCHW10	7129620
		B1N4L5	J7E040342-2	JWCHW1A	9JWCHW10	7129619
		B1N4L5	J7E040342-2	JWCHW1AE	9JWCHW10	7129616
		B1N4L5	J7E040342-2	JWCHW2A	9JWCHW20	7171388
		B1N4M0	J7E040342-3	JWCJC1AA	9JWCJC10	7129620
		B1N4M0	J7E040342-3	JWCJC1AC	9JWCJC10	7129619
		B1N4M0	J7E040342-3	JWCJC1AE	9JWCJC10	7129616

Comments:

Report Nbr: 35704

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	ВАТСН
W05172	W07-005	B1N4M0	J7E040342-3	JWCJC1AF	9JWCJC10	7129612
		B1N4M5	J7E040342-4	JWCJM1AA	9JWCJM10	7129620
		B1N4M5	J7E040342-4	JWCJM1AC	9JWCJM10	7129619
		B1N4M5	J7E040342-4	JWCJM1AE	9JWCJM10	7129616
		B1N4M5	J7E040342-4	JWCJM2AD	9JWCJM20	7171388
		B1N4K1	J7E070107-1	JWEPC1AA	9JWEPC10	7129620
		B1N4K1	J7E070107-1	JWEPC1AC	9JWEPC10	7129618
		B1N4K1	J7E070107-1	JWEPC1AE	9JWEPC10	7129612
		B1N4K1	J7E070107-1	JWEPC1AF	9JWEPC10	7129616
		B1N4K5	J7E070107-2	JWEPG1AA	9JWEPG10	7129620
		B1N4K5	J7E070107-2	JWEPG1AC	9JWEPG10	7129612
		B1N4K5	J7E070107-2	JWEPG1AD	9JWEPG10	7129616
		B1N4K6	J7E070107-3	JWEPK1AA	9JWEPK10	7129620
		B1N4K6	J7E070107-3	JWEPK1AC	9JWEPK10	7129612
		B1N4K6	J7E070107-3	JWEPK1AD	9JWEPK10	7129616
		B1N4R9	J7E070107-4	JWEPP1AA	9JWEPP10	7129620
		B1N4R9	J7E070107-4	JWEPP1AC	9JWEPP10	7129612
		B1N4R9	J7E070107-4	JWEPP1AD	9JWEPP10	7129616
		B1N4T4	J7E070107-5	JWEPQ1AA	9JWEPQ10	7129620
		B1N4T4	J7E070107-5	JWEPQ1AC	9JWEPQ10	7129617
		B1N4T4	J7E070107-5	JWEPQ1AD	9JWEPQ10	7129618
		B1N4T4	J7E070107-5	JWEPQ1AE	9JWEPQ10	7129612
		B1N4T4	J7E070107-5	JWEPQ1AF	9JWEPQ10	7129616
		B1N4T6	J7E070107-6	JWEPW1AA	9JWEPW10	7129620
		B1N4T6	J7E070107-6	JWEPW1AE	9JWEPW10	7129616
		B1N4T6	J7E070107-6	JWEPW2AD	9JWEPW20	7171388

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 SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W05172	W07-005	B1N541	J7E070107-7	JWFA81AA	9JWFA810	7129617
		B1N541	J7E070107-7	JWFA81AC	9JWFA810	7129618
	S07-003	B1MF90	J7E070109-1	JWEP11AA	9JWEP110	7129621
		B1MDN5	J7E070109-2	JWEP51AA	9JWEP510	7129617
		B1MDN5	J7E070109-2	JWEP51AC	9JWEP510	7129618
		B1MDN5	J7E070109-2	JWEP51AD	9JWEP510	7129616
		B1MDN7	J7E070109-3	JWEP61AA	9JWEP610	7129617
		B1MDN7	J7E070109-3	JWEP61AC	9JWEP610	7129618
		B1MDN7	J7E070109-3	JWEP61AD	9JWEP610	7129616
		B1MDN8	J7E070109-4	JWEP81AA	9JWEP810	7129617
		B1MDN8	J7E070109-4	JWEP81AC	9JWEP810	7129618
		B1MDN8	J7E070109-4	JWEP81AD	9JWEP810	7129616
	S07-004	B1MRM5	J7E070112-1	JWEQK1AA	9JWEQK10	7129620
		B1MRM5	J7E070112-1	JWEQK1AC	9JWEQK10	7129613
	107-044	B1N357	J7E080312-1	JWH5W1AA	9JWH5W10	7129613
		B1N357	J7E080312-1	JWH5W2AC	9JWH5W20	7171388
	S07-005	B1N3Y1	J7E080313-1	JWH501AA	9JWH5010	7129620
		B1N3Y1	J7E080313-1	JWH501AC	9JWH5010	7129613
		B1N3Y1	J7E080313-1	JWH501AD	9JWH5010	7129616



STL Richland 2800 George Washington Way Richland, WA 99354

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Certificate of Analysis

Fluor Hanford 1200 Jadwin Ave. Richland, WA 99352

June 25, 2007

Attention: Steve Trent

SAF Number I07-027, W07-005, S07-003, S07-004, I07-044,

S07-005

Date SDG Closed May 7, 2007 Nineteen (19) Number of Samples

Sample Type Water SDG Number W05172

Data Deliverable 45-Day / Summary

CASE NARRATIVE

I. Introduction

Between May 3, 2007 and May 7, 2007 nineteen water samples were received at STL Richland (STLR) for radiochemical analysis. Upon receipt, the samples were assigned the following laboratory ID numbers to correspond with the Pacific Northwest National Laboratories (PGW) specific IDs:

PGW ID#	STLR ID#	DATE OF RECEIPT	MATRIX
B1M6K6	JWA5N	5/03/07	WATER
B1N4J6	JWCD1	5/03/07	WATER
B1N4L5	JWCHW	5/03/07	WATER
B1N4M0	JWCJC	5/03/07	WATER
B1N4M5	JWCJM	5/03/07	WATER
B1N4K1	JWEPC	5/04/07	WATER
B1N4K5	JWEPG	5/04/07	WATER
B1N4K6	JWEPK	5/04/07	WATER
B1N4R9	JWEPD	5/04/07	WATER
B1N4T4	JWEPQ	5/04/07	WATER
B1N541	JWFA8	5/04/07	WATER
B1N4T6	JWEPW	5/04/07	WATER
B1MF90	JWEP1	5/04/07	WATER

B1MDN5	JWEP5	5/04/07	WATER	
B1MDN7	JWEP6	5/04/07	WATER	
B1MDN8	JWEP8	5/04/07	WATER	
B1MRM5	JWEQK	5/04/07	WATER	
B1N357	JWH5W	5/07/07	WATER	
B1N3Y1	JWH50	5/07/07	WATER	

II. Sample Receipt

The samples were received in good condition and no anomalies were noted during check-in.

III. Analytical Results/Methodology

The analytical results for this report are presented by laboratory sample ID. Each set of data includes sample identification information, analytical results and the appropriate associated statistical errors.

The requested analyses were:

Gas Proportional Counting

Gross Alpha by method RICH-RC-5014 Gross Beta by method RICH-RC-5014

Gamma Spectroscopy

Gamma Spec (LL) by method RICH-RC-5017 Iodine-129 (LL) by method RICH-RC-5025

Liquid Scintillation Counting

Enriched Tritium by method RICH-RC-5024 Technetium-99 by TEVA method RICH-RC-5065 Technetium-99 by method RICH-RC-5078 Tritium by method RICH-RC-5007

Laser Induced Phosphorimetry

Total Uranium by method RICH-RC-5058

IV. Quality Control

The analytical results for each analysis performed includes a minimum of one laboratory control sample (LCS), one method (reagent) blank, and one duplicate sample analysis. Any exceptions have been noted in the "Comments" section.

QC and sample results are reported in the same units.

V. Comments

Gas Proportional Counting

Gross Alpha by method RICH-RC-5014:

The volume was reduced on sample B1N4T4 based on the elevated screen result. Except as noted, the LCS, batch blank, samples and sample duplicate (B1MDN5) results are within contractual requirements.

Gross Beta by method RICH-RC-5014:

Reduced volumes were analyzed based on an elevated screen results for samples B1MDN7, B1N4K1 and B1MDN7. Sample B1N4K1 does not meet the CRDL, however the sample result exceeds the MDA. Except as noted, the LCS, batch blank, samples and sample duplicate (B1MDN7) results are within contractual requirements.

Gamma Spectroscopy

Gamma Spec (LL) by method RICH-RC-5017:

The LCS, batch blank, samples and sample duplicate (B1N4J6) results are within contractual requirements.

<u>Iodine-129 (LL) by method RICH-RC-5025:</u>

The LCS, batch blank, samples and sample duplicate (B1M6K6) results are within contractual requirements.

Liquid Scintillation Counting

Technetium-99 by TEVA method RICH-RC-5065:

The LCS, batch blank, samples, sample duplicate (B1D2J2), and sample matrix spike (B1D2J9) results are within contractual requirements.

Technetium-99 by method RICH-RC-5078:

The original counts of this Tc99 batch the TSIE was out and the batch could not be calculated. The samples were shaken, rewiped and recounted. The batch was recounted and the TSIE was still out. After consideration by the QA Manager and the Technical Director, the decision was made to extend the upper limits of the curve to 480. The samples were ale to be calculated acceptable. Except as notLCS, batch blank, samples, sample duplicate (B1N357), and sample matrix spike (B1N4T6) results are within contractual requirements.

Tritium by method RICH-RC-5007:

The LCS, batch blank, samples and sample duplicate (B1N4K6) results are within contractual requirements.

Enriched Tritium by method RICH-RC-5024

The LCS, batch blank, samples and sample duplicate (B1MF90) results are within contractual requirements.

Pacific Northwest National Laboratories June 25, 2007

Total Uranium

Total Uranium by method RICH-RC-5058:

The LCS, batch blank, samples, sample duplicate (B1N3Y1), and sample matrix spike (B1MDN5) results are within contractual requirements.

I certify that this Certificate of Analysis is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager, or a designee as verified by the following signature.

Reviewed and approved:

Sherryl A. Adam

Project Manager

Drinking Water Method Cross References

	DRINKING WATER ASTM METHOD CROSS REFERENCES							
Referenced Method	Isotope(s)	STL Richland's SOP number						
EPA 901.1	Cs-134, I-131	RICH-RC-5017						
EPA 900.0	Alpha & Beta	RICH-RC-5014						
EPA 903.1	Ra-226	RICH-RC-5005						
EPA 904.0	Ra-228	RICH-RC-5005						
EPA 905.0	Sr89/90	RICH-RC-5006						
ASTM D2460	Total Radium	RICH-RC-5027						
Standard Method 7500-U-C & ASTM D5174	Uranium	RICH-RC-5058						
EPA 906.0	Tritium	RICH-RC-5007						
NOTE:								
The Gross Alpha LCS is prepared with Am-24								
The Gross Beta LCS is prepared with Sr/Y-90) (unless otherwise	specified in the case narrative)						

Uncertainty Estimation

STL Richland has adopted the internationally accepted approach to estimating uncertainties described in "NIST Technical Note 1297, 1994 Edition". The approach, "Law of Propagation of Errors", involves the identification of all variables in an analytical method which are used to derive a result. These variables are related to the analytical result (R) by some functional relationship, R = constants * f(x,y,z,...). The components (x,y,z) are evaluated to determine their contribution to the overall method uncertainty. The individual component uncertainties (u_i) are then combined using a statistical model that provides the most probable overall uncertainty value. All component uncertainties are categorized as type A, evaluated by statistical methods, or type B, evaluated by other means. Uncertainties not included in the components, such as sample homogeneity, are combined with the component uncertainty as the square root of the sum-of-the-squares of the individual uncertainties. The uncertainty associated with the derived result is the combined uncertainty (u_c) multiplied by the coverage factor (1,2, or 3).

When three or more sample replicates are used to derive the analytical result, the type A uncertainty is the standard deviation of the mean value (S/vn), where S is the standard deviation of the derived results. The type B uncertainties are all other random or non-random components that are not included in the standard deviation.

The derivation of the general "Law of Propagation of Errors" equations and specific example are available on request.

Report Definitions Action Lev An agreed upon activity level used to trigger some action when the final result is greater than or equal to the Action Level. Often the Action Level is related to the Decision Limit. Batch The QC preparation batch number that relates laboratory samples to QC samples that were prepared and analyzed together. Bias Defined by the equation (Result/Expected)-1 as defined by ANSI N13.30. COC No Chain of Custody Number assigned by the Client or STL Richland. Count Error (#s) Poisson counting statistics of the gross sample count and background. The uncertainty is absolute and in the same units as the result. For Liquid Scintillation Counting (LSC) the batch blank count is the background. Total Uncert (#s) All known uncertainties associated with the preparation and analysis of the sample are propagated to give a measure u_c_Combined of the uncertainty associated with the result, u, the combined uncertainty. The uncertainty is absolute and in the Uncertainty. same units as the result. The coverage factor defines the width of the confidence interval, 1, 2 or 3 standard deviations. (#s), Coverage Factor CRDL (RL) Contractual Required Detection Limit as defined in the Client's Statement Of Work or STL Richland "default" nominal detection limit. Often referred to the reporting level (RL) Lc Decision Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume associated with the sample. The Type I error probability is approximately 5%. Lc=(1.645 * Sqrt(2*(BkgrndCnt/BkgrndCntMin)/SCntMin)) * (ConvFct/(Eff*Yld*Abn*Vol) * IngrFct). For LSC methods the batch blank is used as a measure of the background variability. Le cannot be calculated when the background count is zero. The number assigned by the LIMS software to track samples received on the same day for a given client. The Lot-Sample No sample number is a sequential number assigned to each sample in the Lot. MDC|MDA Detection Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume with a Type I and II error probability of approximately 5%. MDC = (4.65 * Sqrt((BkgrndCnt/BkgrndCntMin)/SCntMin) + 2.71/SCntMin) * (ConvFct/(Eff * Yld * Abn * Vol) * IngrFct). For LSC methods the batch blank is used as a measure of the background variability. **Primary Detector** The instrument identifier associated with the analysis of the sample aliquot. Ratio U-234/U-238 The U-234 result divided by the U-238 result. The U-234/U-238 ratio for natural uranium in NIST SRM 4321C is Rst/MDC Ratio of the Result to the MDC. A value greater than 1 may indicate activity above background at a high level of confidence. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result. Ratio of the Result to the Total Uncertainty. If the uncertainty has a coverage factor of 2 a value greater than 1 may Rst/TotUcert indicate activity above background at approximately the 95% level of confidence assuming a two-sided confidence interval. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result. Sample Identifier used by the report system. The number is based upon the first five digits of the Work Order Report DB No Number. The equation Replicate Error Ratio = (S-D)/[sqrt(TPUs² + TPUd²)] as defined by ICPT BOA where S is the original RER sample result, D is the result of the duplicate, TPUs is the total uncertainty of the original sample and TPUd is the total uncertainty of the duplicate sample. SDG Sample Delivery Group Number assigned by the Client or assigned by STL Richland upon sample receipt. Sum Rpt Alpha The sum of the reported alpha spec results for tests derived from the same sample excluding duplicate result where Spec Rst(s) the results are in the same units.

The recovery of the tracer added to the sample such as Pu-242 used to trace a Pu-239/40 method.

The LIMS software assign test specific identifier.

Yield

Work Order

6/25/2007 8:43:23 AM	STL Richland Report	
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FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 35704 File Name: h:\Reportdb\edd\FeadIV\Rad\W05172.Edd, h:\Reportdb\edd\FeadIV\Rad\35704.Edd Lab Client Test Contract SAF Nbr QC Sdg Moisture/ Distilled Sample Collection Sample Id: ld: User Nbr Nbr: Type: Solids%*: Volume On Date: Date: 9JWA5810 B1MRD9 MW6-SBB-A1 S07-004 W05172 05/03/2007 08:46 Batch Analyte CAS# Result CntU 2S Unit TotU 2S Qual MDA **TrcYield** Method Alq Size Unit Analy Date/Time Act 7129620 H-3 10028-17-8 8.38F+03 nCi/L 3.2E+02 4.7E+02 2.98E+02 100.0 906.0 H3 LSC 5.00E-03 06/16/2007 10:33 7129617 **ALPHA** 12587-46-1 2.67E+00 pCi/L 1.6E+00 1.7E+00 1.70E+00 100.0 9310 ALPHABETA 1,995E-01 06/18/2007 19:55 7129618 **BETA** 12587-47-2 7.14E+00 pCi/L 1.8E+00 2.2E+00 2.85E+00 100.0 9310 ALPHABETA 1.981E-01 06/18/2007 17:36 7129613 I-129L 15046-84-1 1.66E+00 pCi/L 3.9E-01 3.9E-01 6.61E-01 96.5 1129LL SEP LEPS 3.9349E+00 06/15/2007 12:20 Lab Client Test Contract SAF Nbr Sdg QC Moisture/ Distilled Sample Collection Sample Id: ld: User Nbr Nbr: Type: Solids%*: Volume On Date: Date: 9JWA5N10 B1M6K6 MW6-SBB-A1 107-027 W05172 05/03/2007 11:27 CAS# Batch Analyte Result CntU 2S TotU 2S Unit Qual MDA TrcYield Method Alq Size Unit Analy Date/Time Act 7129613 I-129L 15046-84-1 2.08E+00 pCi/L 4.5E-01 4.5E-01 3.31E-01 96.5 1129LL SEP LEPS 3.9053E+00 L 06/15/2007 12:18 Lab Client Test Contract SAF Nbr Sda QC Distilled Moisture/ Sample Collection Sample Id: ld: User Nbr Nbr: Type: Solids%*: Volume On Date: Date: 9JWCG110 B1N4J6 MW6-SBB-A1 W07-005 W05172 05/03/2007 12:13 **Batch** Analyte CAS# Result Unit CntU 2S TotU 2S Qual MDA **TrcYield** Method Alq Size Unit **Analy Date/Time** Act 7129619 BE-7 13966-02-4 -1.37E+01 pCi/L 4.0E+01 4.0E+01 U 6.75E+01 GAMMALL GS 1.9921E+00 06/20/2007 17:02 7129619 CO-60 10198-40-0 4.76E+01 pCi/L 1.0E+01 1.0E+01 5.14E+00 GAMMALL GS 1.9921E+00 L 06/20/2007 17:02 7129619 CS-134 13967-70-9 3.18E-01 pCi/L 3.2E+00 3.2E+00 U 5.88E+00 GAMMALL GS 1.9921E+00 06/20/2007 17:02 1 CS-137 7129619 10045-97-3 6.86E-01 pCi/L 3.1E+00 3.1E+00 U 5.74E+00 GAMMALL GS 1.9921E+00 06/20/2007 17:02 L 7129619 EU-152 14683-23-9 2.66E+00 pCi/L 6.3E+00 6.3E+00 U 1.18E+01 GAMMALL GS 1.9921E+00 L 06/20/2007 17:02 7129619 EU-154 15585-10-1 -2.08E-01 pCi/L 5.9E+00 5.9E+00 U 1.16E+01 GAMMALL GS 1.9921E+00 L 06/20/2007 17:02 7129619 EU-155 14391-16-3 -2.59E+00 pCi/L 5.2E+00 5.2E+00 U 8.86E+00 GAMMALL GS 1.9921E+00 L 06/20/2007 17:02 7129619 K-40 13966-00-2 1.40E+01 pCi/L 6.2E+01 6.2E+01 U 1.38E+02 GAMMALL GS 1.9921E+00 L 06/20/2007 17:02 7129619 RU-106 13967-48-1 -6.03E+00 pCi/L 2.8E+01 2.8E+01 U 4.91E+01 GAMMALL GS 1.9921E+00 06/20/2007 17:02 L 7129619 SB-125 14234-35-6 -3.78E+00 pCi/L 6.9E+00 6.9E+00 U 1.16E+01 GAMMALL GS 1.9921E+00 06/20/2007 17:02 L 7129616 7440-61-1 Uranium 3.65E+01 ug/L 4.3E+00 4.3E+00 7.79E-02 UTOT KPA 2.69E-02 ML 06/19/2007 14:31 Lab Client Test Contract SAF Nbr Sdg QC Moisture/ Distilled Sample Collection Sample Id: ld: User Nbr Nbr: Type: Solids%*: Volume On Date: Date: 9JWCG120 B1N4J6 MW6-SBB-A1 W07-005 W05172 05/03/2007 12:13 Batch CAS# CntU 2S Analyte Result Unit TotU 2S Qual MDA TrcYield Method Alq Size Unit Analy Date/Time Act 7171388 TC-99 2.14E+04 14133-76-7 pCi/L 9.6E+01 1.3E+03 1.27E+01 100.0 TC99 ETVDSK LS 1.257E-01 L 06/20/2007 21:00

Lab Code: STLRL

STL Richland

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

B Qual- Analyte was found in the associated laboratory blank above the MDC.

FormNb	r: R	FormatType: F	LAND VCISIO	on: 05	repe is	l br : 35704			•	edd\FeadIV\Rad\W051	172.Edd, n:\Rep	ou lab lea	idii cadi v irradioo70°	
Lab Sample Id: 9JWCHW1		Test User	Contract Nbr MW6-SBB-A1	SAF N b	Nbr:	. 71		Moisture/ Solids%*:	Distilled Volume	Sample On Date:		I	llection Date: 2007 09:55	
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7129620	H-3	10028-17-8	3.31E+04	pCi/L	6.0E+02	1.4E+03		2.97E+0	2 100.0	906.0_H3_LSC	5.00E-03	L	06/16/2007 11:	55 I
7129619	BE-7	13966-02-4	9.14E+00	pCi/L	3.5E+01	3.5E+01	U	6.51E+0	1	GAMMALL_GS	1.997E+00	L	06/20/2007 19:0)2
7129619	CO-60	10198-40 - 0	2.06E+01	pCi/L	6.9E+00	6.9E+00		4.33E+0	0	GAMMALL_GS	1.997E+00	L	06/20/2007 19:0)2 I
7129619	CS-134	13967-70-9	2.40E-01	pCi/L	2.7E+00	2.7E+00	U	5.08E+0	0	GAMMALL_GS	1.997E+00	L	06/20/2007 19:0)2
7129619	CS-137	10045-97-3	-2.26E-01	pCi/L	3.0E+00	3.0E+00	U	5.29E+00	0	GAMMALL_GS	1.997E+00	L	06/20/2007 19:0	02
7129619	EU-152	14683-23-9	4.70E+00	pCi/L	7.2E+00	7.2E+00	U	1.35E+0	1	GAMMALL_GS	1.997E+00	L	06/20/2007 19:0)2 I
7129619	EU-154	15585-10-1	-5.05E-01	pCi/L	8.0E+00	8.0E+00	U	1.49E+0	1	GAMMALL_GS	1.997E+00	L	06/20/2007 19:0)2 I
7129619	EU-155	14391-16-3	-1.61E+00	pCi/L	4.9E+00	4.9E+00	U	8.42E+00	0	GAMMALL_GS	1.997E+00	L	06/20/2007 19:0)2
7129619	K-40	13966-00-2	6.65E+01	pCi/L	7.2E+01	7.2E+01	U	4.74E+0	1	GAMMALL_GS	1.997E+00	L	06/20/2007 19:0)2
7129619	RU-106	13967-48-1	-1.48E+00	pCi/L	2.4E+01	2.4E+01	U	4.31E+0	1	GAMMALL_GS	1.997E+00	L	06/20/2007 19:0)2
7129619	SB-125	14234-35-6	-1.05E+00	pCi/L	6.4E+00	6.4E+00	U	1.12E+0	1	GAMMALL_GS	1.997E+00	L	06/20/2007 19:0)2 I
7129616	Uranium	7440-61-1	2.66E+02	ug/L	3.1E+01	3.1E+01		8.35E-02	2	UTOT_KPA	2.51E-02	ML	06/19/2007 14:3	35 I
1 -1.	00													
Lab Sample Id: 9JWCHW2		Test User	Contract Nbr MW6-SBB-A1	SAF Nb W07-005	Nbr:	QC Typ		Moisture/ Solids%*:	Distilled Volume	Sample On Date:			lection Date: 2007 09:55	
Sample Id:	ld:	User		W07-005	Nbr:	Тур		Solids%*:		•	Alq Size		Date: 2007 09:55	Act
Sample Id: 9JWCHW2	ld: 0 B1N4L5	User Î	Nbr MW6-SBB-A1	W07-005	Nbr: W05172	Тур 2	e:	Solids%*:	Volume TrcYield	On Date:	•	05/03/2	Date:	
Sample Id: 9JWCHW26 Batch 7171388 Lab Sample Id:	Id: 0 B1N4L5 Analyte TC-99 Client Id:	User CAS# 14133-76-7 Test User	Nbr MW6-SBB-A1 Result 9.67E+03 Contract Nbr	W07-005 Unit pCi/L SAF Nb	Nbr: W05172 CntU 2S 6.5E+01 r Sdg Nbr:	TotU 2S 5.8E+02 QC Typ	e: Qual	Solids%*: MDA	Volume TrcYield	On Date:	•	05/03/2 Unit L Col	Date: 2007 09:55 Analy Date/Time 06/20/2007 21:4 lection Date:	
Sample Id: 9JWCHW20 Batch 7171388 Lab Sample Id: 9JWCJC10	Id: 0 B1N4L5 Analyte TC-99 Client Id: B1N4M0	User CAS# 14133-76-7 Test User	Nbr MW6-SBB-A1 Result 9.67E+03 Contract Nbr MW6-SBB-A1	W07-005 Unit pCi/L SAF Nb	Nbr: W05172 CntU 2S 6.5E+01 r Sdg Nbr: W05172	Typ 2 TotU 2S 5.8E+02 QC Typ	e: Qual ; e:	Solids%*: MDA 1.27E+0 Moisture/ Solids%*:	Volume TrcYield 1 100.0 Distilled Volume	On Date: Method TC99_ETVDSK_LS Sample On Date:	1.258E-01	05/03/2 Unit L Col 05/03/2	Date: 2007 09:55 Analy Date/Time 06/20/2007 21:4 lection Date: 2007 10:56	12 1
Sample Id: 9JWCHW20 Batch 7171388 Lab Sample Id: 9JWCJC10 Batch	Id: 0 B1N4L5 Analyte TC-99 Client Id: B1N4M0 Analyte	User CAS# 14133-76-7 Test User CAS#	Nbr MW6-SBB-A1 Result 9.67E+03 Contract Nbr MW6-SBB-A1 Result	W07-005 Unit pCi/L SAF Nb W07-005 Unit	Nbr: W05172 CntU 2S 6.5E+01 r Sdg Nbr: W05172 CntU 2S	Typ TotU 2S 5.8E+02 QC Typ TotU 2S	e: Qual	Solids%*: MDA 1.27E+0* Moisture/ Solids%*: MDA	Volume TrcYield 1 100.0 Distilled Volume TrcYield	On Date: Method TC99_ETVDSK_LS Sample On Date: Method	Alq Size	Col 05/03/2 Unit L Col 05/03/2 Unit	Date: 2007 09:55 Analy Date/Time 06/20/2007 21:4 lection Date: 2007 10:56 Analy Date/Time	Act
Sample Id: 9JWCHW20 Batch 7171388 Lab Sample Id: 9JWCJC10 Batch 7129620	Id: 0 B1N4L5 Analyte TC-99 Client Id: B1N4M0 Analyte H-3	User CAS# 14133-76-7 Test User CAS# 10028-17-8	Nbr MW6-SBB-A1 Result 9.67E+03 Contract Nbr MW6-SBB-A1 Result 9.84E+03	W07-005 Unit pCi/L SAF Nb W07-005 Unit pCi/L	Nbr: W05172 CntU 2S 6.5E+01 r Sdg Nbr: W05172 CntU 2S 3.4E+02	Typ 2 TotU 2S 5.8E+02 QC Typ 2 TotU 2S 5.2E+02	e: Qual ; e: Qual	MDA 1.27E+0 ² Moisture/ Solids%*: MDA 2.97E+0 ²	Volume TrcYield 1 100.0 Distilled Volume TrcYield 2 100.0	On Date: Method TC99_ETVDSK_LS Sample On Date: Method 906.0_H3_LSC	Alq Size 5.00E-03	05/03/2 Unit L Col 05/03/2 Unit L	Date: 2007 09:55 Analy Date/Time 06/20/2007 21:4 lection Date: 2007 10:56 Analy Date/Time 06/16/2007 13:7	Act 16 I
Sample Id: 9JWCHW20 Batch 7171388 Lab Sample Id: 9JWCJC10 Batch 7129620 7129619	Id: 0 B1N4L5 Analyte TC-99 Client Id: B1N4M0 Analyte H-3 BE-7	User CAS# 14133-76-7 Test User CAS# 10028-17-8 13966-02-4	Nbr MW6-SBB-A1 Result 9.67E+03 Contract Nbr MW6-SBB-A1 Result 9.84E+03 -1.03E+01	W07-005 Unit pCi/L SAF Nb W07-005 Unit pCi/L pCi/L	Nbr: W05172 CntU 2S 6.5E+01 r Sdg Nbr: W05172 CntU 2S 3.4E+02 4.0E+01	Typ 2 TotU 2S 5.8E+02 QC Typ 2 TotU 2S 5.2E+02 4.0E+01	e: Qual ; e:	MDA 1.27E+0 Moisture/ Solids%*: MDA 2.97E+02 6.95E+03	Volume TrcYield 1 100.0 Distilled Volume TrcYield 2 100.0	Method TC99_ETVDSK_LS Sample On Date: Method 906.0_H3_LSC GAMMALL_GS	Alq Size 5.00E-03 2.002E+00	05/03/2 Unit L Col 05/03/2 Unit L L L	Date: 2007 09:55 Analy Date/Time 06/20/2007 21:4 lection Date: 2007 10:56 Analy Date/Time 06/16/2007 13:7	Act 16 I
Sample Id: 9JWCHW26 Batch 7171388 Lab Sample Id: 9JWCJC10 Batch 7129620 7129619 7129619	Id: 0 B1N4L5 Analyte TC-99 Client Id: B1N4M0 Analyte H-3 BE-7 CO-60	CAS# 14133-76-7 Test User CAS# 10028-17-8 13966-02-4 10198-40-0	Nbr MW6-SBB-A1 Result 9.67E+03 Contract Nbr MW6-SBB-A1 Result 9.84E+03 -1.03E+01 7.21E+01	W07-005 Unit pCi/L SAF Nb W07-005 Unit pCi/L pCi/L pCi/L	Nbr: W05172 CntU 2S 6.5E+01 r Sdg Nbr: W05172 CntU 2S 3.4E+02 4.0E+01 1.3E+01	Typ 2 TotU 2S 5.8E+02 QC Typ 2 TotU 2S 5.2E+02 4.0E+01 1.3E+01	e: Qual ; e: Qual	MDA 1.27E+0* Moisture/ Solids%*: MDA 2.97E+02 6.95E+0* 4.32E+06	TrcYield 1 100.0 Distilled Volume TrcYield 2 100.0 1	Method TC99_ETVDSK_LS Sample On Date: Method 906.0_H3_LSC GAMMALL_GS GAMMALL_GS	Alq Size 5.00E-03 2.002E+00 2.002E+00	05/03/2 Unit L Col 05/03/2 Unit L L L L	Date: 2007 09:55 Analy Date/Time 06/20/2007 21:4 lection Date: 2007 10:56 Analy Date/Time 06/16/2007 13:4 06/20/2007 22:4	Act 16 1 10 1
Sample Id: 9JWCHW26 Batch 7171388 Lab Sample Id: 9JWCJC10 Batch 7129620 7129619 7129619 7129619	Id: 0 B1N4L5 Analyte TC-99 Client Id: B1N4M0 Analyte H-3 BE-7 CO-60 CS-134	CAS# 14133-76-7 Test User CAS# 10028-17-8 13966-02-4 10198-40-0 13967-70-9	Nbr MW6-SBB-A1 Result 9.67E+03 Contract Nbr MW6-SBB-A1 Result 9.84E+03 -1.03E+01 7.21E+01 1.18E-01	W07-005 Unit pCi/L SAF Nb W07-005 Unit pCi/L pCi/L pCi/L pCi/L	Nbr: W05172 CntU 2S 6.5E+01 r Sdg Nbr: W05172 CntU 2S 3.4E+02 4.0E+01 1.3E+01 3.6E+00	Typ 2 TotU 2S 5.8E+02 QC Typ 2 TotU 2S 5.2E+02 4.0E+01 1.3E+01 3.6E+00	e: Qual ; e: Qual U	MDA 1.27E+0 ⁻¹ Moisture/ Solids%*: MDA 2.97E+0 ⁻¹ 4.32E+0 ⁻¹ 6.52E+0 ⁻¹	TrcYield 1 100.0 Distilled Volume TrcYield 2 100.0 1	Method TC99_ETVDSK_LS Sample On Date: Method 906.0_H3_LSC GAMMALL_GS GAMMALL_GS GAMMALL_GS	Alq Size 5.00E-03 2.002E+00 2.002E+00 2.002E+00	05/03/2 Unit L Col E 05/03/2 Unit L L L L	Date: 2007 09:55 Analy Date/Time 06/20/2007 21:4 lection Date: 2007 10:56 Analy Date/Time 06/16/2007 13:1 06/20/2007 22:1 06/20/2007 22:1	Act 16 1 10 1 10 1
Sample Id: 9JWCHW20 Batch 7171388 Lab Sample Id: 9JWCJC10 Batch 7129620 7129619 7129619 7129619 7129619	Id: 0 B1N4L5 Analyte TC-99 Client Id: B1N4M0 Analyte H-3 BE-7 CO-60 CS-134 CS-137	CAS# 14133-76-7 Test User CAS# 10028-17-8 13966-02-4 10198-40-0 13967-70-9 10045-97-3	Nbr MW6-SBB-A1 Result 9.67E+03 Contract Nbr MW6-SBB-A1 Result 9.84E+03 -1.03E+01 7.21E+01 1.18E-01 -2.88E+00	W07-005 Unit pCi/L SAF Nb W07-005 Unit pCi/L pCi/L pCi/L pCi/L pCi/L	Nbr: W05172 CntU 2S 6.5E+01 r Sdg Nbr: W05172 CntU 2S 3.4E+02 4.0E+01 1.3E+01 3.6E+00 2.7E+00	Typ 2 TotU 2S 5.8E+02 QC Typ 2 TotU 2S 5.2E+02 4.0E+01 1.3E+01 3.6E+00 2.7E+00	e: Qual ; e: Qual U U U	MDA 1.27E+0 ⁻ Moisture/ Solids%*: MDA 2.97E+0 ⁻ 6.95E+0 ⁻ 4.32E+0(6.52E+0(4.22E+0(Volume TrcYield 1 100.0 Distilled Volume TrcYield 2 100.0 1 0 0	Method TC99_ETVDSK_LS Sample On Date: Method 906.0_H3_LSC GAMMALL_GS GAMMALL_GS GAMMALL_GS GAMMALL_GS	Alq Size 5.00E-03 2.002E+00 2.002E+00 2.002E+00 2.002E+00	05/03/2 Unit L Col 05/03/2 Unit L L L L L	Date: 2007 09:55 Analy Date/Time 06/20/2007 21:4 lection Date: 2007 10:56 Analy Date/Time 06/16/2007 13:7 06/20/2007 22:7 06/20/2007 22:7 06/20/2007 22:7 06/20/2007 22:7	Act 166 I 100 I 100 I 100 I
Sample Id: 9JWCHW26 Batch 7171388 Lab Sample Id: 9JWCJC10 Batch 7129620 7129619 7129619 7129619 7129619 7129619	Id: 0 B1N4L5 Analyte TC-99 Client Id: B1N4M0 Analyte H-3 BE-7 CO-60 CS-134 CS-137 EU-152	CAS# 14133-76-7 Test User CAS# 10028-17-8 13966-02-4 10198-40-0 13967-70-9 10045-97-3 14683-23-9	Nbr MW6-SBB-A1 Result 9.67E+03 Contract Nbr MW6-SBB-A1 Result 9.84E+03 -1.03E+01 7.21E+01 1.18E-01 -2.88E+00 2.78E+00	W07-005 Unit pCi/L SAF Nb W07-005 Unit pCi/L pCi/L pCi/L pCi/L pCi/L pCi/L	Nbr: W05172 CntU 2S 6.5E+01 r Sdg Nbr: W05172 CntU 2S 3.4E+02 4.0E+01 1.3E+01 3.6E+00 2.7E+00 7.0E+00	Typ 2 TotU 2S 5.8E+02 QC Typ 2 TotU 2S 5.2E+02 4.0E+01 1.3E+01 3.6E+00 2.7E+00 7.0E+00	e: Qual e: Qual U U U U	MDA 1.27E+0 ⁻¹ Moisture/ Solids%*: MDA 2.97E+0 ⁻¹ 4.32E+0 ⁻¹ 4.32E+0 ⁻¹ 4.22E+0 ⁻¹	Volume TrcYield 1 100.0 Distilled Volume TrcYield 2 100.0 1 0 0 1	Method TC99_ETVDSK_LS Sample On Date: Method 906.0_H3_LSC GAMMALL_GS GAMMALL_GS GAMMALL_GS GAMMALL_GS GAMMALL_GS	Alq Size 5.00E-03 2.002E+00 2.002E+00 2.002E+00 2.002E+00 2.002E+00	05/03/2 Unit L Col 05/03/2 Unit L L L L L L	Date: 2007 09:55 Analy Date/Time 06/20/2007 21:4 lection Date: 2007 10:56 Analy Date/Time 06/16/2007 13:7 06/20/2007 22:7 06/20/2007 22:7 06/20/2007 22:7 06/20/2007 22:7 06/20/2007 22:7	Act 16 10 10 10 10 10 10 10
Sample Id: 9JWCHW26 Batch 7171388 Lab Sample Id: 9JWCJC10 Batch 7129620 7129619 7129619 7129619 7129619 7129619 7129619	Id: 0 B1N4L5 Analyte TC-99 Client Id: B1N4M0 Analyte H-3 BE-7 CO-60 CS-134 CS-137 EU-152 EU-154	CAS# 14133-76-7 Test User CAS# 10028-17-8 13966-02-4 10198-40-0 13967-70-9 10045-97-3 14683-23-9 15585-10-1	Nbr MW6-SBB-A1 Result 9.67E+03 Contract Nbr MW6-SBB-A1 Result 9.84E+03 -1.03E+01 7.21E+01 1.18E-01 -2.88E+00 2.78E+00 -3.64E+00	W07-005 Unit pCi/L SAF Nb W07-005 Unit pCi/L pCi/L pCi/L pCi/L pCi/L pCi/L pCi/L	Nbr: W05172 CntU 2S 6.5E+01 r Sdg Nbr: W05172 CntU 2S 3.4E+02 4.0E+01 1.3E+01 3.6E+00 2.7E+00 7.0E+00 8.0E+00	Typ 2 TotU 2S 5.8E+02 QC Typ 2 TotU 2S 5.2E+02 4.0E+01 1.3E+01 3.6E+00 2.7E+00 7.0E+00 8.0E+00	e: Qual Cual U U U U U U U	MDA 1.27E+0 Moisture/ Solids%*: MDA 2.97E+0 6.95E+0 4.32E+0 6.52E+0 1.30E+0 1.39E+0	Volume TrcYield 1 100.0 Distilled Volume TrcYield 2 100.0 1 0 0 1 1	Method TC99_ETVDSK_LS Sample On Date: Method 906.0_H3_LSC GAMMALL_GS GAMMALL_GS GAMMALL_GS GAMMALL_GS GAMMALL_GS GAMMALL_GS GAMMALL_GS	Alq Size 5.00E-03 2.002E+00 2.002E+00 2.002E+00 2.002E+00 2.002E+00 2.002E+00	05/03/2 Unit L 05/03/2 Unit L 05/03/2 Unit L L L L L	Date: 2007 09:55 Analy Date/Time 06/20/2007 21:4 Rection Date: 2007 10:56 Analy Date/Time 06/16/2007 13:7 06/20/2007 22:7 06/20/2007 22:7 06/20/2007 22:7 06/20/2007 22:7 06/20/2007 22:7 06/20/2007 22:7 06/20/2007 22:7	Act 6 1 10 1 10 1 10 1 10 1 1
Sample Id: 9JWCHW26 Batch 7171388 Lab Sample Id: 9JWCJC10 Batch 7129620 7129619 7129619 7129619 7129619 7129619	Id: 0 B1N4L5 Analyte TC-99 Client Id: B1N4M0 Analyte H-3 BE-7 CO-60 CS-134 CS-137 EU-152	CAS# 14133-76-7 Test User CAS# 10028-17-8 13966-02-4 10198-40-0 13967-70-9 10045-97-3 14683-23-9	Nbr MW6-SBB-A1 Result 9.67E+03 Contract Nbr MW6-SBB-A1 Result 9.84E+03 -1.03E+01 7.21E+01 1.18E-01 -2.88E+00 2.78E+00	W07-005 Unit pCi/L SAF Nb W07-005 Unit pCi/L pCi/L pCi/L pCi/L pCi/L pCi/L	Nbr: W05172 CntU 2S 6.5E+01 r Sdg Nbr: W05172 CntU 2S 3.4E+02 4.0E+01 1.3E+01 3.6E+00 2.7E+00 7.0E+00	Typ 2 TotU 2S 5.8E+02 QC Typ 2 TotU 2S 5.2E+02 4.0E+01 1.3E+01 3.6E+00 2.7E+00 7.0E+00	e: Qual e: Qual U U U U	MDA 1.27E+0 ⁻¹ Moisture/ Solids%*: MDA 2.97E+0 ⁻¹ 4.32E+0 ⁻¹ 4.32E+0 ⁻¹ 4.22E+0 ⁻¹	TrcYield 1 100.0 Distilled Volume TrcYield 2 100.0 1 0 0 1 1 1 0	Method TC99_ETVDSK_LS Sample On Date: Method 906.0_H3_LSC GAMMALL_GS GAMMALL_GS GAMMALL_GS GAMMALL_GS GAMMALL_GS	Alq Size 5.00E-03 2.002E+00 2.002E+00 2.002E+00 2.002E+00 2.002E+00	05/03/2 Unit L Col 05/03/2 Unit L L L L L L	Date: 2007 09:55 Analy Date/Time 06/20/2007 21:4 lection Date: 2007 10:56 Analy Date/Time 06/16/2007 13:7 06/20/2007 22:7 06/20/2007 22:7 06/20/2007 22:7 06/20/2007 22:7 06/20/2007 22:7	Act 16 1 10 1 10 1 10 1 10 1 10 1 10 1 10

STL Richland

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

B Qual- Analyte was found in the associated laboratory blank above the MDC.

6/25/200	7 8:43:24 AM	1			ST.	ΓL Ric	ıla	nd Repor	rt			I	ab Code: STLI	RL		
FormNbi	r: R	FormatType: F	EAD Versi	on: 05	Rpt N	br: 35704		File Name:	h:\Reportdb\	edd\FeadIV\Rad\W051	dd\FeadIV\Rad\W05172.Edd, h:\Reportdb\edd\FeadIV\Rad\35704.Edd					
7129619	RU-106	13967-48-1	1.22E+01	pCi/L	2.7E+01	2.7E+01	U	5.08E+01	1	GAMMALL_GS	2.002E+00	L	06/20/2007	22:10)	
7129619	SB-125	14234-35-6	1.30E+00	pCi/L	7.0E+00	7.0E+00	U	1.27E+01	1	GAMMALL_GS	2.002E+00	L	06/20/2007	22:10) [
7129612	TC-99	14133-76-7	2.06E+04	pCi/L	8.1E+01	1.2E+03		1.06E+01	1 100.0	TC99_SEP_LSC	1.248E-01	L	06/19/2007	10:39) [
7129616	Uranium	7440-61-1	5.04E+00	ug/L	5.2E-01	5.2E-01		8.28E-02		UTOT_KPA	2.53E-02	ML	06/19/2007	14:37	' I	
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nb	Nbr:	QC Typ		Moisture/ Solids%*:	Distilled Volume	•		Ε	lection Date:			
D-4-1-			MW6-SBB-A1				~	- L BADA	TViald	لد مالده ال	Alm Cina		2007 12:42	·	Ani	
Batch 7129620	Analyte H-3	CAS# 10028-17-8	Result 5.52E+03		CntU 2S 2.7E+02	TotU 2S 3.6E+02	Qu	al MDA 2.98E+02	TrcYield	Method 906.0 H3 LSC	Alq Size 5.00E-03	Unit L	Analy Date/T 06/16/2007		Act ≀ ≀	
7129619	BE-7	13966-02-4	-1.04E+01	•	2.3E+01		U			GAMMALL_GS	2.0006E+00		06/20/2007			
7129619	CO-60	10198-40-0	8.97E+00	pCi/L	3.9E+00	3.9E+00	Ū	3.72E+00		GAMMALL GS	2.0006E+00		06/20/2007			
7129619	CS-134	13967-70-9	-2.04E-01	pCi/L	1.9E+00	1.9E+00	U			GAMMALL GS	2.0006E+00		06/20/2007			
7129619	CS-137	10045-97-3	1.16E-01	pCi/L	1.8E+00	1.8E+00	U			GAMMALL GS	2.0006E+00		06/20/2007	22:14	1	
7129619	EU-152	14683-23-9	-1.00E+00	pCi/L	4.9E+00	4.9E+00	U			GAMMALL GS	2.0006E+00		06/20/2007	22:14	· 1	
7129619	EU-154	15585-10-1	8.08E-03	pCi/L	5.4E+00	5.4E+00	U	1.03E+01	1	GAMMALL_GS	2.0006E+00	L	06/20/2007	22:14	1	
7129619	EU-155	14391-16-3	-4.65E+00	pCi/L	4.2E+00	4.2E+00	U	6.64E+00)	GAMMALL_GS	2.0006E+00	L	06/20/2007	22:14	- 1	
7129619	K-40	13966-00-2	8.99E+00	pCi/L	2.6E+01	2.6E+01	U	5.90E+01	1	GAMMALL_GS	2.0006E+00	L	06/20/2007	22:14	. 1	
7129619	RU-106	13967-48-1	8.16E-01	pCi/L	1.8E+01	1.8E+01	U	3.18E+01	1	GAMMALL_GS	2.0006E+00	L	06/20/2007	22:14	- 1	
7129619	SB-125	14234-35-6	2.05E+00	pCi/L	4.4E+00	4.4E+00	U	8.36E+00)	GAMMALL_GS	2.0006E+00	L	06/20/2007	22:14	, 1	
7129616	Uranium	7440-61-1	3.27E+02	ug/L	3.9E+01	3.9E+01		8.28E-02	!	UTOT_KPA	2.53E-02	ML	06/19/2007	14:43	i	
Lab Sample Id: 9JWCJM20	Client Id: B1N4M5	Test User	Contract Nbr MW6-SBB-A1	SAF Nb W07-005	Nbr:			Moisture/ Solids%*:	Distilled Volume	•		Ε	lection Date: 2007 12:42			
Batch	Analyte	CAS#	Result		CntU 2S	TotU 2S	Qu	al MDA	TrcYield	Method	Alq Size	Unit	Analy Date/T	îme	Act	
7171388	TC-99	14133-76-7	4.98E+03	pCi/L	4.7E+01	3.0E+02		1.27E+01	1 100.0	TC99_ETVDSK_LS	1.253E-01	L	06/20/2007	22:23	, 1	
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nb	Nbr:	,		Moisture/ Solids%*:	Distilled Volume	•	7991		lection Date:			
9JWEP110			MW6-SBB-A1		W05172		•	-1 MDA	TueVield	8.6 - 4.b	Ala Ciao		2007 12:07 Analy Date/T	im o	Ao	
Batch 7129621	Analyte H-3	CAS# 10028-17-8	Result 1.16E+02	Unit pCi/L	CntU 2S 1.0E+01	TotU 2S 2.3E+01	Qu	al MDA 5.94E+00	TrcYield 0 100.0	Method TRITIUM_ELECT_L	Alq Size 1.50E-01	Unit L	06/15/2007		Act	
Lab Sample Id: 9JWEP510	Client Id: B1MDN5	Test User	Contract Nbr MW6-SBB-A1	SAF Nb S07-003	r Sdg Nbr: W05172			Moisture/ Solids%*:	Distilled Volume	•			lection Date: 2007 10:36		1,000	

STL Richland

rptFeadRadSummaryEdd v3.48

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

B Qual- Analyte was found in the associated laboratory blank above the MDC.

6/25/200	7 8:43:24 AN	1			S	TL Ric	hlan	d Repor	t			L	ab Code: STLRL	
FormNb	r: R	FormatType: Fi	EAD Versi	on: 05	Rpt N	lbr: 35704		File Name: h	:\Reportdb\	edd\FeadIV\Rad\W051	72.Edd, h:\Re	portdb\ed	d\FeadIV\Rad\35704.	Edd
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual		TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7129617	ALPHA	12587-46-1	8.93E+00	pCi/L	2.9E+00	3.6E+00		2.24E+00	100.0	9310_ALPHABETA	2.007E-01	L	06/18/2007 19:5	5 I
7129618	BETA	12587-47-2	1.92E+01	pCi/L	2.4E+00	3.4E+00		2.93E+00	100.0	9310_ALPHABETA	1.984E-01	L	06/18/2007 17:3	6 I
7129616	Uranium	7440-61-1	1.90E+01	ug/L	2.2E+00	2.2E+00		7.51E-02		UTOT_KPA	2.79E-02	ML	06/19/2007 15:0	2 I
Lab Sample Id: 9JWEP610	Client Id:	Test User	Contract Nbr MW6-SBB-A1	SAF N	Nbr:			Moisture/ Solids%*:	Distilled Volume			E	ection Pate: 007 11:23	
		CAS#					Ount	BADA -	rV: - ! d	Madead	Al C:			A -4
Batch 7129617	Analyte ALPHA	12587-46-1	Result 2.06E+00	Unit pCi/L	CntU 2S 1.5E+00	TotU 2S 1.5E+00	Qual	MDA 1.89E+00	TrcYield	Method 9310 ALPHABETA	Alq Size	Unit L	Analy Date/Time 06/18/2007 19:59	Act
7129618	BETA	12587-47-2	1.70E+01	pCi/L		4.0E+00		3.10E+00		9310_ALPHABETA		L	06/18/2007 17:3	
7129616	Uranium	7440-61-1	1.90E+01	ug/L		2.3E+00		8.25E-02		UTOT_KPA	2.54E-02	ML	06/19/2007 15:00	
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF N	br Sdg Nbr:	QC Typ		Moisture/ Solids%*:	Distilled Volume	Sample	anagan da amanagan ga atau amanagan ga ata		ection Pate:	
9JWEP810	B1MDN8	N	MW6-SBB-A1	S07-003	W0517	2						05/04/2	007 11:23	
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	ΓrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7129617	ALPHA	12587-46-1	-4.18E-02	pCi/L	3.1E-01	3.1E-01	U	1.04E+00	100.0	9310_ALPHABETA	1.994E-01	L	06/18/2007 20:59	9 I
7129618	BETA	12587-47-2	6.22E-01	pCi/L	1.2E+00	1.2E+00	U	2.58E+00	100.0	9310_ALPHABETA	1.987E-01	L	06/18/2007 17:3	7
7129616	Uranium	7440-61-1	1.93E-02	ug/L	2.3E-03	2.3E-03	U	7.59E-02		UTOT_KPA	2.76E-02	ML	06/19/2007 15:08	8 I
Lab Sample Id: 9JWEPC10	Client Id:	Test User	Contract Nbr MW6-SBB-A1	SAF N	Nbr:			Moisture/ Solids%*:	Distilled Volume	Sample On Date:		D	ection late: 007 11:30	
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA -	TrcYield	Method	Alg Size	Unit	Analy Date/Time	Act
7129620	H-3	10028-17-8	2.16E+03	pCi/L		2.3E+02	Quai	2.98E+02		906.0_H3_LSC	5.00E-03	L	06/16/2007 16:00	
7129618	BETA	12587-47-2	2.49E+02	pCi/L	8.9E+00			5.16E+00		9310_ALPHABETA		L	06/18/2007 18:23	_
7129612	TC-99	14133-76-7	8.66E+02	pCi/L	1.8E+01			1.14E+01		TC99 SEP_LSC	1.268E-01	L	06/19/2007 10:3	
7129616	Uranium	7440-61-1	3.03E+00	ug/L	3.1E-01	3.1E-01		8.19E-02		UTOT_KPA	2.56E-02	ML	06/19/2007 14:4-	
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF N	Nbr:			Moisture/ Solids%*:	Distilled Volume	•	70	D	ection late:	
9JWEPG10			MW6-SBB-A1					145.4	r	B# a4la a al	A1 O'		007 08:58	A - 1
Batch 7129620	Analyte H-3	CAS# 10028-17-8	Result 1.36E+04	Unit pCi/L	CntU 2S 3.9E+02	TotU 2S 6.6E+02	Qual	MDA 2.96E+02	TrcYield	Method 906.0_H3_LSC	Alq Size 5.00E-03	Unit L	Analy Date/Time 06/16/2007 17:2	Act
7129620 7129612	п-з ТС-99	14133-76-7	1.52E+02	pCi/L		1.4E+01		9.90E+00		TC99_SEP_LSC	1.268E-01	L	06/19/2007 17:2	
			5.76E+00	•	6.9E-01	6.9E-01		9.90E+00 8.35E-02		UTOT_KPA	2.51E-02	L ML	06/19/2007 10:3	
7129616	Uranium	7440-61-1	3.70E+00	ug/L	0.9E-01	0.8E-01		0.55⊏-02		OTOT_NEA	2.01E-02	IVIL	00/18/2007 14.40	U I

STL Richland

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

B Qual- Analyte was found in the associated laboratory blank above the MDC.

6/25/2007 8:43:24 AM	STL Richland Report	Lab Code: STLRL
0/23/2007 0.13.211114	SILINCHIANU NEDVIL	Eab Couc. OTERL

File Name: h:\Reportdb\edd\FeadIV\Rad\V05172.Edd, h:\Reportdb\edd\FeadIV\Rad\V35704.Edd

Rpt Nbr: 35704

Lab Client Test Contract SAF Nbr Sdg QC Moisture/ Distilled Collection Sample Sample Id: ld: User Nbr Nbr: Type: Solids%*: Volume On Date: Date: 9JWEPK10 B1N4K6 MW6-SBB-A1 W07-005 W05172 05/04/2007 08:58 CAS# Batch Analyte Result Unit CntU 2S TotU 2S Qual MDA TrcYield Method Alq Size Unit Analy Date/Time Act 7129620 H-3 10028-17-8 1.35E+04 pCi/L 3.9E+02 6.6E+02 2.97E+02 100.0 906.0 H3 LSC 5.00E-03 06/16/2007 18:43 7129612 TC-99 14133-76-7 1.46E+02 pCi/L 7.8E+00 1.4E+01 1.02E+01 100.0 TC99 SEP LSC 1.255E-01 06/19/2007 10:39 7440-61-1 5.71E+00 ug/L 7129616 Uranium 6.9E-01 6.9E-01 8.12E-02 UTOT KPA 2.58E-02 ML 06/19/2007 14:52 Lab Client Test Contract SAF Nbr Sdg QC Moisture/ Distilled Sample Collection Sample Id: ld: User Nbr Nbr: Type: Solids%*: Volume On Date: Date: 9JWEPP10 B1N4R9 MW6-SBB-A1 W07-005 W05172 05/04/2007 09:56 CAS# Batch Analyte Result Unit CntU 2S TotU 2S Qual MDA TrcYield Method Alq Size Unit Analy Date/Time Act 7129620 10028-17-8 3.6E+02 5.7E+02 H-3 1.12E+04 pCi/L 2.97E+02 100.0 906.0 H3 LSC 5.00E-03 06/17/2007 01:32 7129612 TC-99 14133-76-7 3.86E+02 pCi/L 1.2E+01 2.8E+01 1.01E+01 100.0 TC99 SEP LSC 1.271E-01 L 06/19/2007 10:39 7440-61-1 8.09E-02 UTOT KPA 2.59E-02 7129616 5.64E+00 ug/L 5.8E-01 5.8E-01 06/19/2007 14:54 Uranium Lab Client Test Contract SAF Nbr Sdg QC Moisture/ Distilled Sample Collection

Sample Id:	ld:	User	Nbr		Nbr:	Type	e: Soli	ds%*:	Volume	On Date:		D	ate:	
9JWEPQ10	B1N4T4	N	MW6-SBB-A1	W07-005	W05172	2						05/04/20	007 10:36	
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7129620	H-3	10028-17-8	1.16E+03	pCi/L	1.6E+02	1.9E+02		2.98E+02	2 100.0	906.0_H3_LSC	5.00E-03	L	06/17/2007 02:54	1
7129617	ALPHA	12587-46-1	-1.84E-01	pCi/L	5.0E-01	5.0E-01	U	1.69E+00	100.0	9310_ALPHABETA	1.113E-01	L	06/18/2007 18:24	I
7129618	BETA	12587-47-2	8.71E+00	pCi/L	1.8E+00	2.2E+00		2.73E+00	100.0	9310_ALPHABETA	1.996E-01	L	06/18/2007 17:36	. 1
7129612	TC-99	14133-76-7	1.17E+01	pCi/L	4.5E+00	6.5E+00		9.97E+00	100.0	TC99_SEP_LSC	1.254E-01	L	06/19/2007 10:39	. 1
7129616	Uranium	7440-61-1	2.97E+00	ug/L	3.0E-01	3.0E-01		7.76E-02		UTOT_KPA	2.70E-02	ML	06/19/2007 14:56	.
l ah	Client	Test	Contract	SAF Nh	r Sda	OC	Moi	sture/	Distilled	Sample		Coll	ection	

Sample I	d: ld:	User	Nbr	SAF NU	Nbr:	Тур		Solids%*:	Volume	•			ate:	
9JWEPW	/10 B1N4T6	MW6-SBB-A		W07-005	W05172	2						05/04/2	007 12:20	
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7129620) H-3	10028-17-8	9.59E+03	pCi/L	3.4E+02	5.2E+02		2.98E+	02 100.0	906.0_H3_LSC	5.00E-03	L	06/17/2007 04:16	
7129616	3 Uranium	7440-61-1	3.54E+02	ug/L	4.2E+01	4.2E+01		7.94E-0)2	UTOT_KPA	2.64E-02	ML	06/19/2007 15:01	1

Lab Sample Id:	Client ld:	Test User	Contract Nbr	SAF Nb	r Sdg Nbr:	Q0 Typ		/loisture/ solids%*:	Distilled Volume	•			lection Date:	
9JWEPW20	V20 B1N4T6 MW6-			W07-005	W05172	?						05/04/2	2007 12:20	
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7171388	TC-99	14133-76-7	2.70E+04	pCi/L	1.1E+02	1.6E+03		1.27E+0	100.0	TC99_ETVDSK_LS	1.259E-01	L	06/20/2007 23:05	1

STL Richland

FormNbr: R

FormatType: FEAD

Version: 05

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.

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B Qual- Analyte was found in the associated laboratory blank above the MDC.

6/25/200	7 8:43:24 AM	ſ			S	TL Rich	ılan	d Repor	rt			I	Lab Code: STLRL	
FormNb	r: R	FormatType:	FEAD Vers	ion: 05	Rpt N	br : 35704		File Name:	h:\Reportdb\	edd\FeadIV\Rad\W051	72.Edd, h:\Rep	ortdb\ed	d\FeadIV\Rad\35704.E	∃dd
Lab Sample Id: 9JWEQK10	Client Id: B1MRM5	Test User	Contract Nbr MW6-SBB-A1	SAF Nb S07-004	or Sdg Nbr: W05172	QC Type		Moisture/ Solids%*:	Distilled Volume			[lection Date: 2007 09:20	
Batch 7129620	Analyte H-3	CAS# 10028-17-8	Result 2.39E+04	Unit pCi/L	CntU 2S 5.1E+02	TotU 2S 1.1E+03	Qual	MDA 2.99E+02	TrcYield 2 100.0	Method 906.0_H3_LSC	Alq Size 5.00E-03	Unit L	Analy Date/Time 06/17/2007 05:38	Act
7129613	I-129L	15046-84-1	-7.10E-02	pCi/L	1.5E-01	1.5E-01	U	2.54E-01	91.9	I129LL_SEP_LEPS	3.9071E+00	L	06/15/2007 14:35	- 1
Lab Sample Id: 9JWFA810	Client Id: B1N541	Test User	Contract Nbr MW6-SBB-A1	SAF N b	Nbr:	QC Type		Moisture/ Solids%*:	Distilled Volume			[lection Date: 2007 12:20	
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7129617	ALPHA	12587-46-1	1.77E+00	pCi/L	1.3E+00	1.3E+00		1.69E+00	100.0	9310_ALPHABETA	1.988E-01	L	06/18/2007 20:59	1
7129618	BETA	12587-47 - 2	7.26E+00	pCi/L	1.7E+00	2.2E+00		2.72E+00	100.0	9310_ALPHABETA	1.997E-01	L	06/18/2007 17:37	i
Lab Sample Id: 9JWH5010	Client Id: B1N3Y1	Test User	Contract Nbr MW6-SBB-A1	SAF Nb S07-005	or Sdg Nbr: W05172	QC Type		Moisture/ Solids%*:	Distilled Volume	Sample On Date:		מ	lection Date: 2007 09:36	
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7129620	H-3	10028-17-8	7.49E+02	pCi/L	1.5E+02	1.7E+02		2.97E+02	2 100.0	906.0_H3_LSC	5.00E-03	L	06/17/2007 06:59	1
7129613	I-129L	15046-84-1	1.84E+00	pCi/L	3.9E-01	3.9E-01	U	6.84E-01	93.5	I129LL_SEP_LEPS	3.9985E+00	L	06/15/2007 14:39	1
7129616	Uranium	7440-61-1	3.15E+00	ug/L	3.2E-01	3.2E-01		8.19E-02		UTOT_KPA	2.56E-02	ML	06/19/2007 15:10	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nb	Nbr:	QC Type		Moisture/ Solids%*:	Distilled Volume	Sample On Date:		מ	lection Date:	
9JWH5W10					W05172								2007 10:59	
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Ac

7129613 I-129L

9JWH5W20 B1N357

Client

ld:

Analyte

TC-99

Lab

Sample Id:

7171388

Batch

2.80E-01 94.6

1.27E+01 100.0

Moisture/

Solids%*:

MDA

Distilled

Volume

TrcYield

1129LL SEP_LEPS 3.8842E+00

Alq Size

Sample

On Date:

TC99 ETVDSK_LS 1.255E-01

Method

3.45E-01

Contract

Nbr

Result

1.40E+02

MW6-SBB-A1 I07-044

pCi/L 1.2E-01

Sdg

Nbr:

W05172

pCi/L 9.4E+00 1.5E+01

CntU 2S

SAF Nbr

Unit

1.2E-01

TotU 2S

QC

Type:

Qual

15046-84-1

Test

User

14133-76-7

CAS#

Act

06/15/2007 14:38

Analy Date/Time

06/21/2007 00:29

Collection

Date:

05/07/2007 10:59

Unit

STL Richland

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

rptFeadRadSummaryEdd v3.48

B Qual- An

Lab Sample Id:

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R

Moisture/Solids%*:

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05172.Edd, h:\Reportdb\edd\FeadIV\Rad\35704.Edd

Collection Date: 05/07/2007 10:59

Client Id:

NA

MW6-SBB-A19981

JWL3K2AB

Matrix:

Case Nbr

WATER

35704 **WATER**

Decant

Sample On Date:

Received Date: 05/07/2007

File Id

SAF Nbr

Test User Contract Nbr

QC Type:

Sdg/Rept Nbr: W05172

SAS Nbr

BLK

Distilled Volume

Batch #/

Qc Type

BLK

Analyt/ CAS# 7171388 TC-99

Result/ Orig Rst -5.14E+00

Unit

Tot/Cnt Uncert 2S pCi/L 6.7E+00

Qual MDC 1.28E+01 100.0

Tracer Spk Conc/ %Rec

Suffix

Analy Method

Aliq Size/ TC99_ETVDSK 1.25E-01

Date/Time Analyzed 06/21/2007

RPD/ RER/ UCL UCL

LCS LCL/UCL Typ

Η

D

R

FSuffix RTyp

BL

01:52 L

Yield

14133-76-7

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05172.Edd, h:\Reportdb\edd\FeadIV\Rad\\35704.Edd

Lab Sample Id:

JWL3L1AB

Sdg/Rept Nbr: W05172

35704

Collection Date: 05/04/2007 11:30

Client Id:

NA

Matrix:

WATER

WATER

Sample On Date:

Moisture/Solids%*:

Analyt/

QC Type:

BLK

Received Date:

05/04/2007

SAF Nbr

Contract Nbr MW6-SBB-A19981 **Test User** Case Nbr SAS Nbr

Suffix

Distilled Volume

File Id

FSuffix RTyp BN Н

Analy

Decant

Alia

Date/Time RPD/ UCL

LCS RER/

Qc Type CAS# 7129612 TC-99 14133-76-7 **BLK**

Batch #/

Orig Rst 2.75E+00

Result/

Tot/Cnt Uncert 2S Unit pCi/L 5.9E+00

Qu-MDC al U 9.92E+00 100.0

Tracer Yield

Spk Conc/ %Rec

Method TC99 SEP LS

Size/ 1.256E-01

Analyzed 06/19/2007 UCL

LCL/UCL Typ D

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05172.Edd, h:\Reportdb\edd\FeadIV\Rad\35704.Edd

Lab Sample Id:

JWL3M1AB NA

Sdg/Rept Nbr: W05172 Matrix:

WATER

35704 **WATER**

Collection Date: 05/03/2007 11:27

Sample On Date:

Moisture/Solids%*:

15046-84-1

QC Type:

BLK

Received Date:

05/03/2007

RER/

UCL

SAF Nbr

BLK

Client Id:

Contract Nbr MW6-SBB-A19981 **Test User** Case Nbr

SAS Nbr

Decant

Distilled Volume

File Id

FSuffix RTyp BP Н

D

R

Batch #/ Analyt/ Qc Type CAS# 7129613 I-129L

Result/ Orig Rst 9.16E-02

Tot/Cnt Unit Uncert 2S pCi/L 1.3E-01 1.3E-01

Qual MDC 2.63E-01

Tracer Yield 93.0

Spk Conc/ %Rec

Suffix

Analy Method 1129LL SEP L

Aliq Size/ 3.9985E+00 06/15/2007

Date/Time Analyzed

RPD/ UCL

LCS LCL/UCL Typ

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05172.Edd, h:\Reportdb\edd\FeadIV\Rad\35704.Edd

Lab Sample Id:

JWL3N1AB

Sdg/Rept Nbr: W05172

35704

Collection Date:

05/07/2007 09:36

Client Id:

NA

Matrix:

WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type:

BLK

Received Date:

05/07/2007

SAF Nbr

Contract Nbr MW6-SBB-A19981 **Test User**

Case Nbr SAS Nbr Suffix

Decant **Distilled Volume** File Id

FSuffix RTyp BR

Batch # / Qc Type

Analyt/ CAS# Orig Rst 7129616 Uranium 1.06E-02

Result/

Unit ua/L

Tot/Cnt **Uncert 2S** 1.7E-03

Qu-MDC al 8.06E-02

Tracer Yield

Spk Conc/ %Rec

Analy Method UTOT KPA

Aliq Size/ 2.60E-02

Date/Time Analyzed 06/19/2007

RPD/ UCL

RER/ LCS UCL LCL/UCL Typ

Н

R

D

7440-61-1 BLK

1.7E-03

U

ML

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05172.Edd, h:\Reportdb\edd\FeadIV\Rad\35704.Edd

Lab Sample Id:

JWL3P1AB

Sdg/Rept Nbr: W05172

35704

Collection Date: 05/04/2007 10:36

Client Id:

NA

Matrix:

WATER

WATER

Sample On Date:

05/04/2007

Moisture/Solids%*:

QC Type:

BLK

Received Date:

SAF Nbr

Contract Nbr MW6-SBB-A19981 **Test User**

Case Nbr SAS Nbr Suffix

Decant

Distilled Volume

File Id

BU Н

R

Batch # / Analyt/ CAS# Qc Type 7129617 ALPHA

Result/ Orig Rst -1.26E-01

Tot/Cnt Unit Uncert 2S pCi/L 1.8E-01

Qual U

Tracer MDC Yield 100.0

Spk Conc/ %Rec

Analy Method

Aliq Size/

Date/Time Analyzed 06/19/2007

RPD/ UCL

RER/ UCL

LCS LCL/UCL Typ

FSuffix RTyp

12587-46-1 BLK

1.8E-01

6.53E-01

9310 ALPHAB

1.985E-01

D

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05172.Edd, h:\Reportdb\edd\FeadIV\Rad\35704.Edd

Lab Sample Id:

JWL3Q1AB

Sdg/Rept Nbr: W05172

35704

Collection Date: 05/04/2007 11:23

RER/

UCL

Client Id:

NA

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type:

BLK

Received Date: 05/04/2007

SAF Nbr

Contract Nbr MW6-SBB-A19981 **Test User** Case Nbr SAS Nbr

Suffix

Decant

Distilled Volume

File Id

BW Н

R

FSuffix RTyp

Batch # / Qc Type 7129618 BETA

Analyt/ Result/ CAS# **Orig Rst** 8.02E-01

Tot/Cnt Unit Uncert 2S pCi/L 9.3E-01 9.2E-01

Qu-MDC al

Tracer Yield 1.79E+00 100.0

Spk Conc/ %Rec

Analy Method 9310 ALPHAB

Aliq Size/ 2.011E-01

Date/Time Analyzed 06/18/2007 RPD/ UCL

LCS LCL/UCL Typ

D

12587-47-2 BLK

L

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05172.Edd, h:\Reportdb\edd\FeadIV\Rad\35704.Edd

Lab Sample Id:

JWL3T1AB

Sdg/Rept Nbr: W05172

35704

Collection Date: 05/03/2007 12:13

Client Id:

NA

Matrix:

WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type:

BLK

Received Date:

05/03/2007

SAF		Contract Nbr W6-SBB-A19981	7	est User	Case	Nbr S	SAS Nbr	Suffix	Decant D	istilled Volume	File	e ld		FSuffix I BY	RTyp H
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UC	R CL Typ
7129619	BE-7	-2.34E+01	pCi/L	2.4E+01	U	3.79E+0	1		GAMMALL_GS	1.997E+00	06/20/2007				D
BLK	13966-02-4	1		2.4E+01						L	22:30				
7129619	CO-60	3.95E-02	pCi/L	2.1E+00	U	4.24E+00)		GAMMALL_GS	1.997E+00	06/20/2007				D
BLK	10198-40-0)		2.1E+00						L	22:30				
7129619	CS-134	-5.75E-03	pCi/L	1.8E+00	U	3.50E+00)		GAMMALL_GS	1.997E+00	06/20/2007				D
BLK	13967-70-9	9		1.8E+00						L	22:30				
7129619	CS-137	-2.27E-01	pCi/L	1.7E+00	U	3.17E+00)		GAMMALL_GS	1.997E+00	06/20/2007				D
BLK	10045-97-3	3		1.7E+00						L	22:30				
7129619	EU-152	-1.98E+00	pCi/L	5.4E+00	U	9.19E+00)		GAMMALL_GS	1.997E+00	06/20/2007				D
BLK	14683-23-9	9		5.4E+00						L	22:30				
7129619	EU-154	9.21E-01	pCi/L	6.2E+00	U	1.26E+01	1		GAMMALL_GS	1.997E+00	06/20/2007				D
BLK	15585-10-1	1		6.2E+00						L	22:30				
7129619	EU-155	5.40E-01	pCi/L	3.5E+00	U	6.38E+00)		GAMMALL_GS	1.997E+00	06/20/2007				D
BLK	14391-16-3	3		3.5E+00						L	22:30				
7129619	K-40	-4.67E+00	pCi/L	3.1E+01	U	6.59E+01	1		GAMMALL_GS	1.997E+00	06/20/2007				D
BLK	13966-00-2	2		3.1E+01						L	22:30				
7129619	RU-106	-6.23E+00	pCi/L	1.6E+01	U	2.75E+01	1		GAMMALL_GS	1.997E+00	06/20/2007				D
BLK	13967-48-	ĺ		1.6E+01						L	22:30				
7129619	SB-125	8.41E-01	pCi/L	5.4E+00	U	9.96E+00)		GAMMALL_GS	1.997E+00	06/20/2007				D
BLK	14234-35-6	3		5.4E+00						L	22:30				

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

Monday, June 25, 2007 STL Richland QC Blank Report Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05172.Edd, h:\Reportdb\edd\FeadIV\Rad\35704.Edd

Lab Sample Id: Sda/Rept Nbr: W05172 35704 JWL3V1AB Collection Date: 05/04/2007 08:58

Client Id: NA Matrix: **WATER WATER** Sample On Date:

Moisture/Solids%*: QC Type: BLK Received Date: 05/04/2007

SAF Nbr **Contract Nbr Test User** Case Nbr SAS Nbr Suffix Decant **Distilled Volume** File Id FSuffix RTyp MW6-SBB-A19981 CA Н Batch #/ Analyt/ Result/ Tot/Cnt Qu-Tracer Spk Conc/ Analy Aliq Date/Time RPD/ RER/ LCS

CAS# Qc Type Orig Rst Unit Uncert 2S MDC al Yield %Rec Method Size/ Analyzed UCL UCL LCL/UCL Typ 7129620 H-3 8.02E+00 pCi/L 1.3E+02 2.97E+02 100.0 906.0 H3 LSC 5.00E-03 06/16/2007 D

BLK 10028-17-8 1.2E+02 07:49 L

R

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05172.Edd, h:\Reportdb\edd\FeadIV\Rad\35704.Edd

Lab Sample Id:

JWL3V1DX

Sdg/Rept Nbr: W05172

35704

Collection Date:

05/04/2007 08:58

Client Id:

NA

Matrix:

WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type:

BLK

Received Date:

05/04/2007

SAF		ontract Nbr 6-SBB-A19981	Т	est User	Case	Nbr S/	AS Nbr	Suffix	Decant	Distilled Volume	File	e Id		FSuffix CC	RTyp H
Batch # / Qc Type 7129620 BLK	Analyt/ CAS# H-3 10028-17-8	Result/ Orig Rst 4.51E+01	Unit pCi/L	Tot/Cnt Uncert 2S 1.4E+02 1.2E+02	Qu- al U	MDC 2.99E+02	Tracer Yield 100.0	Spk Conc/ %Rec	Analy Method 906.0_H3_L	Aliq Size/ SC 5.00E-03 L	Date/Time Analyzed 06/16/2007 22:49	RPD/ UCL	RER/ UCL	LCS LCL/UC	R CL Typ D

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05172.Edd, h:\Reportdb\edd\FeadIV\Rad\35704.Edd

Lab Sample Id:

JWL3X1AB

Sdg/Rept Nbr: W05172

35704

Collection Date:

05/04/2007 12:07

Client Id:

NA

Matrix:

WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type:

BLK

Received Date:

05/04/2007

SAF Nbr

Contract Nbr MW6-SBB-A19981 **Test User** Case Nbr SAS Nbr

Suffix

Decant

Distilled Volume

File Id

FSuffix RTyp CE

Η

Batch #/ Qc Type 7129621 H-3

Analyt/ Result/ CAS# Orig Rst 2.73E+00

Tot/Cnt Unit Uncert 2S pCi/L 8.2E+00

Qu-MDC al

Tracer Yield 5.94E+00 100.0

Spk Conc/ %Rec

Analy Method TRITIUM ELE

Size/ 1.50E-01

Alia Date/Time Analyzed 06/14/2007

RPD/ UCL

RER/ LCS UCL LCL/UCL Typ

D

10028-17-8 **BLK**

6.5E+00

L

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\V05172.Edd, h:\Reportdb\edd\FeadIV\Rad\35704.Edd

Lab Sample Id:

Moisture/Solids%*:

14133-76-7

JWL3K2CS

Sdg/Rept Nbr: W05172

35704

Collection Date: 05/07/2007 10:59

Client Id:

NA

Matrix: QC Type: WATER

WATER

Sample On Date:

Received Date:

05/07/2007

RPD/

UCL

File Id

SAF Nbr

Contract Nbr MW6-SBB-A19981 Case Nbr

al

BS

Suffix Decant **Distilled Volume**

FSuffix RTyp

Batch # / Qc Type

BS

Analyt/ CAS# 7171388 TC-99

Result/ Orig Rst 5.18E+02

Tot/Cnt Uncert 2S Unit pCi/L 3.8E+01 1.6E+01

Test User

Qu-Tracer MDC Yield 1.25E+01 100.0

SAS Nbr

Spk Conc/ %Rec 5.30E+02 97.7

Analy Method

Aliq Size/ TC99 ETVDSK 1.277E-01

Date/Time Analyzed 06/21/2007 02:33

RER/ UCL

LCS LCL/UCL Typ 70 D

Н

R

130

BM

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05172.Edd, h:\Reportdb\edd\FeadIV\Rad\35704.Edd

Lab Sample Id:

JWL3L1CS

Sdg/Rept Nbr: W05172

35704

Collection Date: 05/04/2007 11:30

Client Id:

NA

Matrix: QC Type: **WATER**

WATER

Sample On Date:

05/04/2007 Received Date:

File Id

RPD/

UCL

Moisture/Solids%*: SAF Nbr

14133-76-7

Contract Nbr MW6-SBB-A19981 Case Nbr SAS Nbr

Qu-

al

BS

Decant

Distilled Volume

Batch # /

Qc Type

BS

Analyt/ CAS# 7129612 TC-99

Result/ Orig Rst 4.77E+02

Tot/Cnt Unit Uncert 2S pCi/L 3.4E+01 1.3E+01

Test User

Tracer MDC Yield 1.01E+01 100.0

Spk Conc/ %Rec 5.39E+02 88.6

Suffix

Analy Method TC99 SEP LS 1.25E-01

Alia Size/ L

Date/Time Analyzed 06/19/2007 10:39

RER/ LCS LCL/UCL Typ UCL

70 D 130

FSuffix RTyp ВО

Н

STL Richland

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05172.Edd, h:\Reportdb\edd\FeadIV\Rad\V35704.Edd

Lab Sample Id:

JWL3M1CS

Sdg/Rept Nbr: W05172

35704

Collection Date: 05/03/2007 11:27

Client Id:

NA

Matrix:

WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type:

BS

Received Date: 05/03/2007

SAF Nbr **Contract Nbr Test User** Case Nbr SAS Nbr Suffix **Distilled Volume** Decant File Id MW6-SBB-A19981 Batch # / Analyt/ Result/ Tot/Cnt Qu-Tracer

CAS# **Orig Rst** Qc Type Unit 7129613 I-129L 9.53E+00 pCi/L 1.2E+00

Uncert 2S al

MDC Yield 3.25E-01 94.4

Spk Conc/ %Rec 9.90E+00

Analy Method

Aliq Date/Time Size/ Analyzed I129LL SEP L 3.9978E+00 06/15/2007 RPD/ RER/ UCL UCL

LCS LCL/UCL Typ

BQ

FSuffix RTyp

Н

R

70 D

BS 15046-84-1 1.2E+00

96.2

16:32

130

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05172.Edd, h:\Reportdb\edd\FeadIV\Rad\35704.Edd

Lab Sample Id:

Moisture/Solids%*:

7440-61-1

JWL3N1CS

Sdg/Rept Nbr: W05172

35704

Collection Date: 05/07/2007 09:36

Client Id:

NA

Matrix: QC Type: **WATER**

WATER

Decant

Sample On Date:

Received Date:

05/07/2007

RPD/

UCL

File Id

SAF Nbr

Contract Nbr MW6-SBB-A19981 Case Nbr

BS

SAS Nbr

Suffix

Distilled Volume

Batch # /

Qc Type

BS

Analyt/ Result/ CAS# Orig Rst 7129616 Uranium 3.57E+01

Tot/Cnt Uncert 2S Unit ug/L 4.2E+00 4.2E+00

Test User

Qual MDC 8.06E-02

Tracer Yield

Spk Conc/ %Rec 3.43E+01 103.8

Analy Method UTOT KPA

Aliq Size/ 2.60E-02 ML

Date/Time Analyzed 06/19/2007 14:27

RER/ UCL

LCS LCL/UCL Typ

FSuffix RTyp

Н

D

R

BS

70 130

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05172.Edd, h:\Reportdb\edd\FeadIV\Rad\35704.Edd

Lab Sample Id:

JWL3N1DS

Sdg/Rept Nbr: W05172

35704

Collection Date: 05/07/2007 09:36

Client Id:

NA

Matrix:

WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type:

BS

Received Date:

05/07/2007

SAF		ontract Nbr 6-SBB-A19981	1	rest User	Case	Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File	e ld		FSuffix I	RTyp H
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UC	R CL Typ
7129616 BS	Uranium 7440-61-1	3.46E+00	ug/L	3.5E-01 3.5E-01		8.22E-0	2	3.58E+00 96.4	UTOT_KPA	2.55E-02 ML	06/19/2007 14:29			70 130	D

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05172.Edd, h:\Reportdb\edd\FeadIV\Rad\35704.Edd

Lab Sample Id:

JWL3P1CS

Sdg/Rept Nbr: W05172

35704

Collection Date: 05/04/2007 10:36

Client Id:

NA

Matrix:

WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type:

BS

Received Date:

05/04/2007

						J									
SAF		ntract Nbr S-SBB-A19981	Т	est User	Case	Nbr S	AS Nbr	Suffix	Decant	Distilled Volume	File	e ld		FSuffix BV	RTyp H
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UC	R CL Typ
7129617 BS	ALPHA 12587-46-1	1.99E+01	pCi/L	4.9E+00 2.1E+00		4.93E-01	100.0	2.24E+01 89.0	9310_ALPHAE	3 2.008E-01 L	06/19/2007 08:13			70 130	D

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\V05172.Edd, h:\Reportdb\edd\FeadIV\Rad\35704.Edd

Lab Sample Id:

JWL3Q1CS

Sdg/Rept Nbr: W05172

35704

Collection Date: 05/04/2007 11:23

Client Id:

NA

Matrix:

WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type:

BS

Received Date:

05/04/2007

SAF		ntract Nbr S-SBB-A19981	Т	est User	Case	Nbr SA	S Nbr	Suffix	Decant	Distilled Volume	File	e Id	***************************************	FSuffix BX	RTyp H
Batch # / Qc Type 7129618	Analyt/ CAS# BETA	Result/ Orig Rst 2.20E+01	Unit pCi/L	Tot/Cnt Uncert 2S 3.6E+00	Qu- al	MDC 1.89E+00	Tracer Yield 100.0	Spk Conc/ %Rec 2.28E+01	Analy Method 9310 ALPHAI	Aliq Size/ 3 1.992E-01	Date/Time Analyzed 06/18/2007	RPD/ UCL	RER/ UCL	LCS LCL/UC	R CL Typ
BS	12587-47-2		,	1.8E+00		,,,,,,		96.7	00 10 <u>-</u> , 1 <u>-</u> , 1	L	18:23			130	

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05172.Edd, h:\Reportdb\edd\FeadIV\Rad\35704.Edd

Lab Sample Id:

JWL3T1CS

Sdg/Rept Nbr: W05172

35704

Collection Date: 05/03/2007 12:13

Client Id:

NA

Matrix:

WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type:

BS

Received Date:

05/03/2007

		- ,			_					110001	vou Duto.	00,00	2001		
SAF		Contract Nbr V6-SBB-A19981	7	Test User	Case	Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File	e Id		FSuffix F	RTyp H
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MD	Tracer C Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UC	R L Typ
7129619 BS	CO-60 10198-40-0	4.04E+01	pCi/L	9.9E+00 9.9E+00		6.36E	+00	3.84E+01 105.2	GAMMALL_GS	3 1.9999E+00 L	06/20/2007 22:14			70 130	D
7129619 BS	CS-137 10045-97-3	2.42E+01	pCi/L	7.0E+00 7.0E+00		5.70E	+00	2.49E+01 97.1	GAMMALL_GS	1.9999E+00 L	06/20/2007 22:14			70 130	D
7129619 BS	EU-152 14683-23-9	7.54E+01	pCi/L	2.3E+01 2.3E+01		1.29E	+01	7.66E+01 98.5	GAMMALL_GS	1.9999E+00 L	06/20/2007 22:14			70 130	D

STL Richland QC Control Sample Report

Lab Code: STLRL

130

FormNbr: R

FormatType: FEAD

2.0E+02

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05172.Edd, h:\Reportdb\edd\FeadIV\Rad\35704.Edd

Lab Sample Id:

JWL3V1CS

Sdg/Rept Nbr: W05172

35704

Collection Date: 05/04/2007 08:58

09:11

Client Id:

BS

NA

Matrix:

WATER

WATER

Sample On Date:

05/04/2007

Moisture/Solids%*:

10028-17-8

QC Type:

BS

Received Date:

SAF N		Contract Nbr V6-SBB-A19981	Т	est User	Case	Nbr SA	S Nbr	Suffix	Decant D	Distilled Volume	File	e ld		FSuffix F	t Typ Η
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UC	R L Typ
7129620	H-3	2.49E+03	pCi/L	2.4E+02		2.97E+02	100.0	2.72E+03	906.0_H3_LSC	5.00E-03	06/16/2007			70	D

91.2

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05172.Edd, h:\Reportdb\edd\FeadIV\Rad\35704.Edd

Lab Sample Id:

Moisture/Solids%*:

10028-17-8

JWL3V1EM

Sdg/Rept Nbr: W05172

35704

Collection Date: 05/04/2007 08:58

Client Id:

NA

Matrix:

QC Type:

WATER

WATER

Sample On Date:

Received Date: 05/04/2007

File Id

SAF Nbr

Contract Nbr MW6-SBB-A19981 **Test User** Case Nbr

Qu-

al

BS

Suffix Decant

RPD/

UCL

Batch #/

Qc Type

BS

Analyt/ Result/ CAS# Orig Rst 7129620 H-3 2.62E+03

Tot/Cnt Unit Uncert 2S pCi/L 2.5E+02

2.1E+02

Tracer MDC Yield 3.00E+02 100.0

SAS Nbr

Spk Conc/ %Rec 2.73E+03 96.1

Analy Method 906.0 H3 LSC 5.00E-03

Alia Size/ L

Distilled Volume

Date/Time Analyzed 06/17/2007 00:11

RER/ UCL

LCS LCL/UCL Typ

FSuffix RTyp

Η

R

CD

70 D 130

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05172.Edd, h:\Reportdb\edd\FeadIV\Rad\35704.Edd

Lab Sample Id:

JWL3X1CS

Sdg/Rept Nbr: W05172

35704

Collection Date: 05/04/2007 12:07

Client Id:

SAF Nbr

NA

Matrix:

WATER

WATER

Sample On Date:

Received Date: 05/04/2007

Moisture/Solids%*:

QC Type:

BS

Decant **Distilled Volume**

File Id FSuffix RTyp

MW6-SBB-A19981

Contract Nbr

Case Nbr

SAS Nbr

Suffix

Aliq Date/Time RPD/ RER/

UCL

CF Н

R

Batch # / Qc Type 7129621 H-3 BS

Analyt/ CAS# 10028-17-8

Result/ **Orig Rst** 3.77E+02

Tot/Cnt Unit Uncert 2S pCi/L 6.7E+01 1.6E+01

Test User

Qu-Tracer MDC al Yield 6.03E+00 100.0

Spk Conc/ %Rec 4.54E+02 83.0

Analy Method TRITIUM ELE

Size/ 1.5002E-01

Analyzed 06/15/2007 00:54

LCS UCL LCL/UCL Typ 70

D 130

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

5.0E-01

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05172.Edd, h:\Reportdb\edd\FeadIV\Rad\35704.Edd

Lab Sample Id:

JWA5N1CR

Sdg/Rept Nbr: W05172

35704

Collection Date: 05/03/2007 11:27

Client Id:

DUP

B1M6K6

2.08E+00

Matrix:

WATER

WATER

Sample On Date:

Moisture/Solids%*:

15046-84-1

QC Type:

DUP

Received Date:

L

05/03/2007

12:20

20.0

3

SAF	Nbr Co	ntract Nbr	1	est User	Case	Nbr S	AS Nbr	Suffix	Decant D	istilled Volume	File	e Id	ļ	FSuffix R	Тур
107-02	7 MW 6	6-SBB-A19981												ΑZ	Н
					_		_								
Batch # /	Analyt/	Result/		Tot/Cnt	Qu-		Tracer	Spk Conc/	Analy	Aliq	Date/Time	RPD/	RER/	LCS	R
Qc Type	CAS#	Orig Rst	Unit	Uncert 2S	al	MDC	Yield	%Rec	Method	Size/	Analyzed	UCL	UCL	LCL/UCL	_ Тур
7129613	l-129L	2.05E+00	pCi/L	5.0E-01		2.98E-01	94.6		1129LL_SEP_L	3.8841E+00	06/15/2007	1.7	0.1		D

STL Richland QC Duplicate Report

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\V\Rad\W05172.Edd. h:\Reportdb\edd\Fead\V\Rad\35704.Edd

Lab Sample Id:

JWCG11ER

Collection Date: 05/03/2007 12:13

Lab Code: STLRL

Client Id:

B1N4J6

Sdg/Rept Nbr: W05172 Matrix:

WATER

WATER

35704

Sample On Date:

Moisture/Solids%*:

FormNbr: R

QC Type:

DUP

Received Date:

05/03/2007

						• •								
SAF W07-		Contract Nbr MW6-SBB-A19981	7	rest User	Case	Nbr S	SAS Nbr	Suffix	Decant D	stilled Volume	File	e Id		FSuffix RTyp BA H
Batch # / Qc Type	Analyt CAS#		Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS R LCL/UCL Typ
7129619	BE-7	2.86E+01	pCi/L	4.8E+01	U	8.91E+0	1		GAMMALL_GS	1.9312E+00	06/20/2007	570.3	1.2	D
DUP	13966-02	2-4 -1.37E+01		4.8E+01						L	22:13	20.0	3	
7129619	CO-60	5.34E+01	pCi/L	1.1E+01		4.87E+0	0		GAMMALL_GS	1.9312E+00	06/20/2007	11.4	0.7	D
DUP	10198-40	0-0 4.76E+01		1.1E+01						L	22:13	20.0	3	
7129619	CS-134	1.29E+00	pCi/L	3.9E+00	U	7.33E+0	0		GAMMALL_GS	1.9312E+00	06/20/2007	120.7	0.3	D
DUP	13967-70	0-9 3.18E-01		3.9E+00						L	22:13	20.0	3	
7129619	CS-137	-3.99E-01	pCi/L	3.3E+00	U	5.88E+0	0		GAMMALL_GS	1.9312E+00	06/20/2007	756.2	0.5	D
DUP	10045-97	7-3 6.86E-01		3.3E+00						L	22:13	20.0	3	
7129619	EU-152	4.08E+00	pCi/L	9.0E+00	U	1.64E+0	1		GAMMALL_GS	1.9312E+00	06/20/2007	42.1	0.2	D
DUP	14683-23	3-9 2.66E+00		9.0E+00						L	22:13	20.0	3	
7129619	EU-154	2.60E+00	pCi/L	9.1E+00	U	1.81E+0	1		GAMMALL_GS	1.9312E+00	06/20/2007	234.8	0.4	D
DUP	15585-10)-1 -2.08E-01		9.1E+00						L	22:13	20.0	3	
7129619	EU-155	3.09E-02	pCi/L	6.4E+00	U	1.12E+0	1		GAMMALL_GS	1.9312E+00	06/20/2007	0.0	0.6	D
DUP	14391-16	6-3 -2.59E+00		6.4E+00						L	22:13	20.0	3	
7129619	K-40	-2.46E+01	pCi/L	6.5E+01	U	1.44E+0	2		GAMMALL_GS	1.9312E+00	06/20/2007	0.0	8.0	D
DUP	13966-00	0-2 1.40E+01		6.5E+01						L	22:13	20.0	3	
7129619	RU-106	2.56E+01	pCi/L	3.1E+01	U	6.08E+0	1		GAMMALL_GS	1.9312E+00	06/20/2007	322.9	1.4	D
DUP	13967-48	3-1 -6.03E+00		3.1E+01						L	22:13	20.0	3	
7129619	SB-125	1.19E+00	pCi/L	9.2E+00	U	1.64E+0	1		GAMMALL_GS	1.9312E+00	06/20/2007	0.0	8.0	D
DUP	14234-3	5-6 -3.78E+00		9.2E+00						L	22:13	20.0	3	

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05172.Edd, h:\Reportdb\edd\FeadIV\Rad\35704.Edd

Lab Sample Id:

JWEP11CR

Sdg/Rept Nbr: W05172

35704

Collection Date: 05/04/2007 12:07

Client Id:

B1MF90

Matrix:

WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type:

DUP

Received Date:

05/04/2007

SAF I		ontract Nbr 6-SBB-A19981	T	est User	Case	Nbr SA	AS Nbr	Suffix	Decant	Distilled Volume	File	ld		FSuffix R BB	Тур Н
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCI	R L Typ
7129621 DUP	H-3 10028-17-8	1.23E+02 1.16E+02	pCi/L	2.4E+01 9.9E+00		5.99E+00	100.0		TRITIUM_ELE	1.50E-01 L	06/15/2007 03:29	5.8 20.0	0.4 3		D

STL Richland QC Duplicate Report

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05172.Edd, h:\Reportdb\edd\FeadIV\Rad\35704.Edd

Lab Sample Id:

JWEP51FR

Sdg/Rept Nbr: W05172

35704

Collection Date: 05/04/2007 10:36

Lab Code: STLRL

Client Id:

B1MDN5

Matrix:

WATER

WATER

Sample On Date:

Moisture/Solids%*: SAF Nbr

QC Type:

DUP

Received Date:

05/04/2007

SAF N S07-00		tract Nbr -SBB-A19981	7	Test User	Case	Nbr S	AS Nbr	Suffix	Decant I	Distilled Volume	File	e Id		FSuffix F BD	RТур Н
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UC	R L Typ
7129617	ALPHA	9.09E+00	pCi/L	3.6E+00		2.05E+00	100.0		9310_ALPHAE	3 2.018E-01	06/18/2007	1.8	0.1		D
DUP	12587-46-1	8.93E+00		2.9E+00						L	19:55	20.0	3		

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

2.4E+00

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\V\Rad\W05172.Edd, h:\Reportdb\edd\Fead\V\Rad\V35704.Edd

Lab Sample Id:

JWEP61ER

Sdg/Rept Nbr: W05172

35704

Collection Date: 05/04/2007 11:23

3

Client Id:

DUP

B1MDN7

1.70E+01

Matrix:

WATER

WATER

Sample On Date:

17:37

Moisture/Solids%*:

12587-47-2

QC Type:

DUP

Received Date:

05/04/2007

20.0

SAF N		ontract Nbr	Т	est User	Case	Nbr SA	S Nbr	Suffix	Decant	Distilled Volume	File	ld		FSuffix R	RTyp
S07-00	03 MW(6-SBB-A19981												BE	Н
Batch # /	Analyt/ CAS#	Result/ Oria Rst	11	Tot/Cnt	Qu-	MDC	Tracer	Spk Conc/	Analy	Aliq	Date/Time	RPD/	RER/	LCS	R
Qc Type	CAS#	Ong RSt	Unit	Uncert 2S	al	MDC	Yield	%Rec	Method	Size/	Analyzed	UCL	UCL	LCL/UC	L Typ
7129618	BETA	1.70E+01	pCi/L	3.5E+00		2.96E+00	100.0		9310_ALPHAE	3 1.861E-01	06/18/2007	.1	0.		D

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05172.Edd, h:\Reportdb\edd\FeadIV\Rad\35704.Edd

Lab Sample Id:

Moisture/Solids%*:

JWEPC1GR

Sdg/Rept Nbr: W05172

35704

Collection Date: 05/04/2007 11:30 Sample On Date:

Client Id:

B1N4K1

Matrix:

QC Type:

WATER

WATER

Received Date:

05/04/2007

RPD/

SAF Nbr

Contract Nbr

DUP

FSuffix RTyp

W07-005

MW6-SBB-A19981

Case Nbr

Qu-

al

SAS Nbr

Suffix

Decant

Distilled Volume

File Id

BF Н

R

Batch #/ Qc Type

DUP

Analyt/ CAS# 7129612 TC-99 14133-76-7

Result/ Orig Rst 8.38E+02 8.66E+02

Unit

Uncert 2S pCi/L 5.5E+01 1.7E+01

Tot/Cnt

Test User

Tracer MDC Yield 1.05E+01 100.0

Spk Conc/ %Rec

Analy Alia Method TC99 SEP LS 1.25E-01

Size/ L

Analyzed UCL 3.3 06/19/2007

UCL 0.7 3

RER/

LCS LCL/UCL Typ D

10:39 20.0

Date/Time

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05172.Edd, h:\Reportdb\edd\FeadIV\Rad\35704.Edd

Lab Sample Id:

JWEPK1ER

Sdg/Rept Nbr: W05172

35704

Collection Date: 05/04/2007 08:58

Client Id:

B1N4K6

Matrix:

WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type:

DUP

Received Date:

05/04/2007

SAF I W07-0		Contract Nbr MW6-SBB-A19981	Tes	st User	Case	Nbr S	AS Nbr	Suffix	Decant I	Distilled Volume	File	ld		FSuffix RT BH	Г ур Н
Batch # / Qc Type	Analyt		Unit 1	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7129620 DUP	H-3 10028-17	1.33E+04 7-8 1.35E+04		6.5E+02 3.9E+02		2.96E+02	100.0		906.0_H3_LS0	5.00E-03 L	06/16/2007 20:05	2.0 20.0	0.6 3	1	D

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\V\Rad\V\05172.Edd, h:\Reportdb\edd\Fead\V\Rad\V\35704.Edd

Lab Sample Id:

JWH501ER

Sdg/Rept Nbr: W05172

35704

Collection Date: 05/07/2007 09:36

Client Id:

B1N3Y1

Matrix:

WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type:

DUP

Received Date:

05/07/2007

SAF I		Contract Nbr W6-SBB-A19981	1	est User	Case	Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File	e ld		FSuffix R BJ	RТур Н
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UC	R L Typ
7129616 DUP	Uranium 7440-61-1	3.21E+00 3.15E+00	ug/L	3.3E-01 3.3E-01		8.35E-0)2		UTOT_KPA	2.51E-02 ML	06/19/2007 15:11	2.0 20.0	0.3 3		D

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05172.Edd, h:\Reportdb\edd\FeadIV\Rad\35704.Edd

Lab Sample Id:

JWH5W2DR

Sdg/Rept Nbr: W05172

35704

Collection Date: 05/07/2007 10:59

Client Id:

B1N357

Matrix:

WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type:

DUP

Received Date:

05/07/2007

SAF N		ntract Nbr -SBB-A19981	T	est User	Case	Nbr SA	S Nbr	Suffix	Decant [Distilled Volume	File	e Id		FSuffix RTyp BK H
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS R LCL/UCL Typ
7171388	TC-99	1.48E+02	pCi/L	1.6E+01		1.26E+01	100.0		TC99_ETVDS	< 1.264E-01	06/21/2007	5.8	8.0	D
DUP	14133-76-7	1.40E+02		9.5E+00						L	01:10	20.0	3	

STL Richland Qc Matrix Spike Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

Test User

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\V05172.Edd, h:\Reportdb\edd\FeadIV\Rad\35704.Edd

Lab Sample Id:

JWEP51EW

Sdg/Rept Nbr: W05172

SAS Nbr

35704

Collection Date: 05/04/2007 10:36

Client Id:

SAF Nbr

B1MDN5

Contract Nbr

Matrix:

WATER

WATER

Decant

Sample On Date:

05/04/2007

Moisture/Solids%*:

QC Type: Case Nbr

MS

Received Date:

Distilled Volume

File Id FSuffix RTyp

S07-0	03 MW	6-SBB-A19981												ВС	H
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/U	R CL Typ
7129616 MS	Uranium 7440-61-1	3.72E+01	ug/L	7.0E+00 7.0E+00		8.19E-02		3.52E+01 105.8	UTOT_KPA	2.56E-02 ML	06/19/2007 15:04			60 140	D

Suffix

Monday, June 25, 2007 STL Richland Qc Matrix Spike Report

FormatType: FEAD

VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05172.Edd, h:\Reportdb\edd\FeadIV\Rad\35704.Edd

Lab Sample Id: JWEPG1EW Sdg/Rept Nbr: W05172 35704 Collection Date: 05/04/2007 08:58

Client Id: B1N4K5 Matrix: WATER WATER Sample On Date:

Moisture/Solids%*: QC Type: MS Received Date: 05/04/2007

SAF Nbr Contract Nbr Test User Case Nbr SAS Nbr Suffix Decant Distilled Volume File Id FSuffix RTyp W07-005 MW6-SBB-A19981

Batch # / Analyt/ Result/ Tot/Cnt Spk Conc/ Qu-Tracer Analy Aliq Date/Time RPD/ RER/ LCS R Qc Type CAS# Orig Rst Unit Uncert 2S MDC %Rec al Yield Method LCL/UCL Typ Size/ Analyzed UCL UCL 7129612 TC-99 3.66E+03 3.28E+03 pCi/L 2.1E+02 1.00E+01 100.0 TC99 SEP_LS 1.245E-01 06/19/2007 60 D 14133-76-7 MS 3.2E+01 89.7 10:39 140

FormNbr: R

Lab Code: STLRL

STL Richland Qc Matrix Spike Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

Test User

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05172.Edd, h:\Reportdb\edd\FeadIV\Rad\35704.Edd

Distilled Volume

Lab Sample Id:

JWEPW2FW

Sdg/Rept Nbr: W05172

Suffix

35704

Decant

Collection Date: 05/04/2007 12:20

FSuffix RTyp

Client Id:

SAF Nbr

B1N4T6

Contract Nbr

Matrix:

WATER

WATER

Sample On Date:

File Id

Moisture/Solids%*:

QC Type: Case Nbr

MS

SAS Nbr

Received Date:

05/04/2007

W07-0	005 MW6	6-SBB-A19981												BI	Н
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UC	R L Typ
7171388	TC-99	4.31E+03	pCi/L	2.5E+03		1.27E+01	100.0	3.62E+03	TC99_ETVDSK	1.257E-01	06/20/2007			60	D
MS	14133-76-7			1.2E+02				119.3		L	23:47			140	



Data Review/Verification Checklist RADIOCHEMISTRY, First Level Review

6/19/2007 3:35:38 PM

Lot No., Due Date:

J7E040306,J7E070109,J7E070107; 06/21/2007

Client, Site:

384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7129617; RALPHA-A Alpha by GPC-Am

SDG, Matrix: W05172; WATER

,			
8.0 Correction Calculation Protocol Used. OK	Yes	No	N/A
8.01 The Appropriate Methods Were Used To Analyze the Samples OK	Yea	No	N/A
8.02 Final Results Are in the Appropriate Activity Units OK	Yes	No	N/A
8.03 Batch Contains the Required QC Appropriate for the Method OK	Yea	No	N/A
8.04 The Correct Tracer and QC Vials Where Used in the Samples OK	Yes	No	N/A
8.05 Sample was Appropriately Traced Before or After Fractionating the Sample OK	Yes	No	N/A
8.06 At Least the Minimum Sample Volume Was Used Analysis Volume => JWEPQ1AC 111.30<200.00 Q:VB	Yes	No	N/A
8.07 The Correct Count Geometry was Used.	Yes	No	N/A
OK 8.08 The Sample was Counted for the Minimum Count Time or CRDL was Achieved. OK	Yes	No	N/A
8.09 Method Blank is within Control Limits. OK	Yea	No	N/A
8.1 Comments:	W)	. * 1904 * * * * * * * * * * * * * * * * * * *	and the second section of the second
8.11 Matrix Blank is within Control Limits. No Matrix Blanks (MBlks) found in Batch!	Yes	No	N/A
8.12 Method Blank(s) < QAS Limit Value (No B Flag Necessary). OK	Yes	No	N/A
8.13 QAS Specified Duplicate Equation Value within Control Limits. OK (RPD)	Yes	No	N/A
8.14 LCS within Control Limits. OK	Yes	No	N/A
8.15 MLCS within Control Limits.	Yes	No	N/A
No Matrix Spikes (MLCS) found in Batch! 8.16 MS within Control Limits. No Matrix Spike Samples (MS) found in Batch!	Yes	No	N/A
8.17 Tracer within Control Limits. OK	Yeş	No	N/A
8.18 Samples are above Minimum Tracer Yield (No Failed Samples) OK	Yes	No	N/A
8.19 Sample Specific MDC <= CRDL.	Yes	No	N/A
8.2 Comments:		or o	anne and a factoring and the first
8.21 Result < Lc, Activity Not Detected, U Flag. No Limit Specified!	Yes	No	N/A
8.22 Result < Mdc, Activity Not Detected, U Flag. Batch Positive Result => JWA581AC ALPHA 2.7E+00 L:1.7E+00	Yes	No W	N/A
JWEP51AA ALPHA 8.9E+00 L:2.2E+00 JWEP61AA ALPHA 2.1E+00 L:1.9E+00 JWFA81AA ALPHA 1.8E+00 L:1.7E+00			
8.23 Result <= Action Level, when Defined. OK; No Action Level Found => ALPHA	Yes	No	N/A
OK; No Callin Level Found => ALPHA 8.24 Result + 3s >=0, Not Too Negative. OK	Yes	No	N/A
STL Richland	Page	• 1	
QAS_RADCALCv4.8.26	ı ayc		

8.25	Counting Spectrum are within FWHM Limits.	Yes	No	N/A
	No FWHM found in Batch Data! Instruments have Current Calibrations.		ryramanty strongstate	W
		Yes	No	N/A
8.27	7 Correct Count Library Used. No Count Library found in Batch Data!	Yes	No	N/A
8.28	Instrument Background within Limits at Time of Counting. (Not Applicable to this version. To be developed in later version.)	n Y≲ès	No	N/A
8.29	Instrument Check Source within Limits at the Time of Counting. (Not Applicable to this version. To be developed in later	v Yées io	or inso).	N/A
8.3	Comments:	TROPETHAN ARCH WINE	ALLONS REPRESENT	rwenter more v
8.31	Results Blank Subtracted as Appropriate.	Yeş	No	N/A
		M	e Clair Large House	nove or a two mensoy or the
Firs	st Level Review Och Hords Date 6-19-7			

STL Richland
QAS_RADCALCv4.8.26



OC Batch Number: // L/le //		•	
OC Batch Number: 7129617 W05172	,		
Review Item	Yes (√)	No (1)	N/A (√)
A. Sample Analysis	100(1)	110(1)	TVA(Y)
1. Are the sample yields within acceptance criteria?			
2. Is the sample Minimum Detectable Activity < the Contract		 	
Detection Limit?			
3. Are the correct isotopes reported?			
B. QC Samples			-
 Is the Minimum Detectable Activity for the blank result ≤ the 			
Contract Detection Limit?			
2. Does the blank result meet the Contract criteria?			
3. Is the blank result < the Contract Detection Limit?		 	
4. Is the blank result > the Contract Detection Limit but the sample	· ·		
result < the Contract Detection Limit?			
5. Is the LCS recovery with contract acceptance criteria?		 	
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection			
Limit?			
8. Do the MS/MSD results and yields meet acceptance criteria?			-
9. Do the duplicate sample results and yields meet acceptance		<u> </u>	
criteria?			
C. Other			
1. Are all Nonconformances included and noted?			
2. Are all required forms filled out?		<u> </u>	
3. Was the correct methodology used?			
4. Was transcription checked?	- Andrews	ļ	
5. Were all calculations checked at a minimum frequency?		 	-
6. Were units checked?		ļ	
		L	
Comments on any "No" response:			
			*
Second Level Review Supplied A All			



Data Review/Verification Checklist RADIOCHEMISTRY, First Level Review

6/19/2007 10:56:52 AM

Lot No., Due Date:

J7E040306,J7E070109,J7E070107; 06/21/2007

Client, Site:

384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7129618; RBETA-SR Beta by GPC-Sr/Y

SDG, Matrix:	W05172; WATER	
8.0 Correction Calculatio		Yes No N/A
OK	1111000010300.	
8.01 The Appropriate Me OK	thods Were Used To Analyze the Samples	Yes No N/A
8.02 Final Results Are in OK	the Appropriate Activity Units	Yes No N/A
	Required QC Appropriate for the Method	Yes No N/A
	and QC Vials Where Used in the Samples	Yes No N/A
8.05 Sample was Approp	riately Traced Before or After Fractionating the Sample	Yes No N/A
l .	m Sample Volume Was Used	Yes No N/A
Analysis Volume => JV JWEP61AC 184.90<2	VEPC1AC 75.40<200.00 200.00 Q:VB	
8.07 The Correct Count (Geometry was Used.	Yes No N/A
	ounted for the Minimum Count Time or CRDL was Achieved.	Yes No N/A
8.09 Method Blank is with	nin Control Limits.	Yes No N/A
8.1 Comments:		
8.11 Matrix Blank is withi		Yes No N/A
No Matrix Blanks (MBlk 8.12 Method Blank(s) < 0	s) found in Batch! QAS Limit Value (No B Flag Necessary).	Yes No N/A
OK	insta Faustica Value within Control Limits	Voc. No. N/A
OK (RPD)	icate Equation Value within Control Limits.	Yes No N/A
8.14 LCS within Control L OK	imits.	Yes No N/A
8.15 MLCS within Contro No Matrix Spikes (MLC		Yes No N/A
8.16 MS within Control Li	THE RESIDENCE OF THE PARTY OF T	Yes No N/A
	es (MS) found in Batch!	<u></u>
8.17 Tracer within Contro	I Limits.	Yes No N/A
L	Minimum Tracer Yield (No Failed Samples)	Yes No N/A
8.19 Sample Specific MD	C <= CRDL.	Yes No N/A
MDC/MDA > CRDL => 8.2 Comments:	JWEPC1AC BETA 5.2E+00>4.0E+00 Q:C1	
8.21 Result < Lc, Activity	Not Detected, U Flag.	Yes No N/A
No Limit Specified!		Voc. No. N/A
8.22 Result < Mdc, Activition Batch Positive Result = JWA581AD BETA 7.1E JWEPC1AC BETA 2.5 JWEPQ1AD BETA 8.5 JWEP51AC BETA 1.5 JWEP61AC BETA 1.7	> 6+00 L:2.8E+00 5E+02 L:5.2E+00 7E+00 L:2.7E+00 9E+01 L:2.9E+00 7E+01 L:3.1E+00	Yes No N/A
JWFA81AC BETA 7.3 8.23 Result <= Action Lev	vel, when Defined.	Yes No N/A
OK; No Action Level Fo		
OK; No Callin Level F	ound => BETA	
STL Richland		Page 1
QAS_RADCALCv4.8.26		

8.24 Result	+ 3s >=0, Not Too Negative.	Yeş	No	N/A
OK		V		
8.25 Counti	ng Spectrum are within FWHM Limits.	Yes	No	N/A
No FWH	M found in Batch Data!			V
8.26 Instrun	nents have Current Calibrations.	Yes	No	N/A
8.27 Correc	Count Library Used.	Yes	No	N/A
No Cour	t Library found in Batch Data!			V
8.28 Instrun	ent Background within Limits at Time of Counting. (Not Applicable to this version. To be developed in later version	16ès	No	N/A
8.29 Instrun	nent Check Source within Limits at the Time of Counting. (Not Applicable to this version. To be developed in later v	∧éesi d	or iNeò .	N/A
8.3 Comme	nts: UCM-10-10153			
8.31 Results	Blank Subtracted as Appropriate.	Yeş	No	N/A
OK		V		

First Level Review

Date UM



OC Batch Number: 7/29618			
W05172			
Review Item	Yes (V)	No (1)	N/A (√)
A. Sample Analysis			1022(1)
1. Are the sample yields within acceptance criteria?			
2. Is the sample Minimum Detectable Activity < the Contract			
Detection Limit?		-	
3. Are the correct isotopes reported?			
B. QC Samples			
1. Is the Minimum Detectable Activity for the blank result ≤ the			}
Contract Detection Limit?			
2. Does the blank result meet the Contract criteria?			
3. Is the blank result < the Contract Detection Limit?	/.		
4. Is the blank result > the Contract Detection Limit but the sample			
result < the Contract Detection Limit?			
5. Is the LCS recovery with contract acceptance criteria?			
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection			
Limit?			
8. Do the MS/MSD results and yields meet acceptance criteria?			
9. Do the duplicate sample results and yields meet acceptance			
criteria?			
C. Other			
1. Are all Nonconformances included and noted?			
2. Are all required forms filled out?			
3. Was the correct methodology used?			
4. Was transcription checked?			
5. Were all calculations checked at a minimum frequency?			
6. Were units checked?			·
Comments on any "No" response: Tel 11 Cm			

Second Level Review. Sherry a Clam Date: 6-19-07

Clouseau **Nonconformance Memo**



NCM #: 10-10153

NCM Initiated By: Lisa Antonson Date Opened: 06/19/2007

Date Closed:

Classification: Anomaly

Status: GLREVIEW

Production Area: Environmental - Prep

Tests: Beta by GPC-Sr/Y

Lot #'s (Sample #'s): J7E040306 (1), J7E070107

(1,5,7), J7E070109 (2,3,4),

J7E090000 (618),

QC Batches: 7129618,

Nonconformance: MDA not met

Subcategory: Sample size reduced due to high residue mass

Problem Description / Root Cause

Name Lisa Antonson Date

Description

In this beta batch, sample JWEPC1AC doesn't meet CRDL. The result for this 06/19/2007

sample exceeds the MDA achieved. The sample had a reduced aliquot based on

weight screens.

Corrective Action

Name

Date

Corrective Action

Lisa Antonson

06/19/2007

Client Notification Summary

Client

Project Manager

Notified

Response How Notified

Note

Response

Response Note

Quality Assurance Verification

Verified By

Due Date

Notes

<u>Status</u> This section not yet completed by QA.

Approval History

Date Approved

Approved By

Position

Date Printed: 6/19/2007

Page 1 of 1



Data Review/Verification Checklist RADIOCHEMISTRY, First Level Review

6/21/2007 3:57:01 PM

Lot No., Due Date:

J7E040342,J7E070107; 06/21/2007

Client, Site:

384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7129619; RGAMMA Gamma by GER

SDG, Matrix:	W05172; WATER			
1.0 COC 1.1 Is the ICOC page co	mplete; includes all applicable analysis, dates, SOP numbers, and revisions?	Yes	No	N/A
2.0 QC Batch 2.1 Do the Summary/De	tailed Reports include a calculated result for each sample listed on the QC Batch Sheet?	Yeş	No	N/A
2.2 Are the QC appropria	ate for the analysis included in the batch?	Yeş	No	N/A
2.3 Is the Analytical Batc	ch Worksheet complete; includes as appropriate, volumes, count times, etc?	Yes	No	N/A
2.4 Does the Worksheet	s include a Tracer Vial label for each sample?	Yes	No	N/A
3.0 QC & Samples 3.1 Is the blank results, y	yield, and MDA within contract limits?	Yeş	No	N/A
3.2 Is the LCS result, yie	eld, and MDA within contract limits?	Yes	No	N/A
3.3 Are the MS/MSD res	ults, yields, and MDA within contract limits?	Yes	No	N/A
3.4 Are the duplicate res	sult, yields, and MDAs within contract limits?	Yeş	No	N/A
3.5 Are the sample yield	s and MDAs within contract limits?	Yes	No	N/A
I.0 Raw Data I.1 Were results calcula	ted in the correct units?	Yes	No	N/A
I.2 Were analysis volum	nes entered correctly?	Yes	No	N/A
.3 Were Yields entered	correctly?	Yes	No	N/A
.4 Were spectra review	red/meet contractual requirements?	Yeş	No	N/A
.5 Were raw counts rev		Yes	No	N/A
5.0 Other 5.1 Are all nonconformar	Les included and noted?	Yes	No	N/A
5.2 Are all required form	s filled out?	Yes	No	N/A
.3 Was the correct met	hodology used?	Yes	No	N/A
i.4 Was transcription ch	ecked?	Yes	No	N/A
5.5 Were all calculations	s checked at a minimum frequency?	Yeş	No	N/A
.6 Are worksheet entrie	es complete and correct?	Yes	No	N/A
	o response:		,	

First Level Review STL Richland

QAS_RADCALCv4.8.26

Date _

Page 1



Review Item	Yes (V)	No (V)	N/A (V)
A. Sample Analysis		12.0(1)	1021(4)
1. Are the sample yields within acceptance criteria?			-
2. Is the sample Minimum Detectable Activity < the Contract		 	
Detection Limit?			.
3. Are the correct isotopes reported?			
B. QC Samples			
 Is the Minimum Detectable Activity for the blank result ≤ the 			
Contract Detection Limit?			
2. Does the blank result meet the Contract criteria?			
3. Is the blank result < the Contract Detection Limit?			
4. Is the blank result > the Contract Detection Limit but the sample			
result < the Contract Detection Limit?			
5. Is the LCS recovery with contract acceptance criteria?			
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?			
8. Do the MS/MSD results and yields meet acceptance criteria?			
9. Do the duplicate sample results and yields meet acceptance criteria?			
C. Other			
Other Are all Nonconformances included and noted?			
2. Are all required forms filled out?	ļ		
3. Was the correct methodology used?		ļ	
4. Was transcription checked?		1	
5. Were all calculations checked at a minimum frequency?		 	
6. Were units checked?	-//	 	
. The talk of the			
Comments on any "No" response:			
- To response.			•
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Data Review/Verification Checklist RADIOCHEMISTRY, First Level Review

6/18/2007 2:02:34 PM

Lot No., Due Date:

J7E040306,J7E040299,J7E070112,J7E080313,J7E080312; 06/21/2007

Client, Site:

384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7129613; RGAMLEPS Gamma by LEPS

SDG, Matrix:

W05172; WATER

COC s the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions?		4444	
s the 1000 page complete, includes all applicable allalysis, dates, 301° flumbers, and revisions:	Yes	No	N/A
QC Batch o the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?	Yeş	No	N/A
re the QC appropriate for the analysis included in the batch?	Yes	No	N/A
the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?	Yes	No	N/A
oes the Worksheets include a Tracer Vial label for each sample?	Yeş	No	N/A
	Yeş	No	N/A
the LCS result, yield, and MDA within contract limits?	Yes	No	N/A
re the MS/MSD results, yields, and MDA within contract limits?	Yes	No	N/A
re the duplicate result, yields, and MDAs within contract limits?	Yes	No	N/A
re the sample yields and MDAs within contract limits?	Yes	No	N/A
	Yes	No	N/A
ere analysis volumes entered correctly?	Yes	No	N/A
ere Yields entered correctly?	Yes	No	N/A
ere spectra reviewed/meet contractual requirements?	Yes	No	N/A
ere raw counts reviewed for anomalies?	Yes	No	N/A
re all nonconformances included and noted?	Yes	No	N/A
re all required forms filled out?	Yes	No	N/A
as the correct methodology used?	Yes	No	N/A
as transcription checked?	Yes	No	N/A
ere all calculations checked at a minimum frequency?	Yes	No	N/A
e worksheet entries complete and correct?	Yes	No	N/A
omments on any No response:	y		
D A IS D CIS IS A A A FW W W W AI CO	Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet? Are the QC appropriate for the analysis included in the batch? Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc? Does the Worksheets include a Tracer Vial label for each sample? QC & Samples Is the blank results, yield, and MDA within contract limits? Is the LCS result, yield, and MDA within contract limits? Are the MS/MSD results, yields, and MDA within contract limits? Are the duplicate result, yields, and MDAs within contract limits? Are the sample yields and MDAs within contract limits? Raw Data Were results calculated in the correct units? Were analysis volumes entered correctly? Were Yields entered correctly? Were rew counts reviewed/meet contractual requirements? Were raw counts reviewed for anomalies? Other Are all required forms filled out? Was the correct methodology used? Was transcription checked? Were all calculations checked at a minimum frequency? Are worksheet entries complete and correct? Comments on any No response:	Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet? Yes Are the QC appropriate for the analysis included in the batch? Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc? Yes Does the Worksheets include a Tracer Vial label for each sample? Yes QC & Samples Is the blank results, yield, and MDA within contract limits? Yes Is the LCS result, yield, and MDA within contract limits? Yes Are the MS/MSD results, yields, and MDA within contract limits? Yes Are the duplicate result, yields, and MDA within contract limits? Yes Were sample yields and MDAs within contract limits? Yes Were results calculated in the correct units? Yes Were analysis volumes entered correctly? Were yields entered correctly? Were spectra reviewed/meet contractual requirements? Were reaw counts reviewed for anomalies? Yes Were raw counts reviewed for anomalies? Yes Were all required forms filled out? Was the correct methodology used? Was transcription checked? Were all calculations checked at a minimum frequency? Are worksheet entries complete and correct? Yes Comments on any No response:	Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet? Yes No North Read (Cappropriate for the analysis included in the batch? Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc? Yes No Does the Worksheets include a Tracer Vial label for each sample? Yes No GC & Samples Is the blank results, yield, and MDA within contract limits? Yes No Is the LCS result, yield, and MDA within contract limits? Yes No Are the MS/MSD results, yields, and MDA within contract limits? Yes No Are the duplicate result, yields, and MDAs within contract limits? Yes No Are the sample yields and MDAs within contract limits? Yes No Were amalysis volumes entered correct units? Yes No Were analysis volumes entered correctly? Yes No Were spectra reviewed/meet contractual requirements? Yes No Were spectra reviewed/meet contractual requirements? Yes No Were rew counts reviewed for anomalies? Yes No Were raw counts reviewed for anomalies? Yes No Were raw counts reviewed for anomalies? Yes No Were all nonconformances included and noted? Yes No Were all required forms filled out? Yes No Were all calculations checked? Yes No Were all calculations checked at a minimum frequency? Yes No Were all calculations checked at a minimum frequency? Yes No Were worksheet entries complete and correct? Yes No Comments on any No response:

First Level Review

STL Richland QAS_RADCALCv4.8.26 Data (0/18/0)



QC Batch Number:	7129613
	4005172

Review Item	Yes (√)	No(V)	$N/A(\sqrt{)}$
A. Sample Analysis			1 2022(1)
1. Are the sample yields within acceptance criteria?			
2. Is the sample Minimum Detectable Activity < the Contract			
Detection Limit?			
3. Are the correct isotopes reported?	:		
B. QC Samples			
1. Is the Minimum Detectable Activity for the blank result ≤ the			
Contract Detection Limit?			ł
2. Does the blank result meet the Contract criteria?			
3. Is the blank result < the Contract Detection Limit?			
4. Is the blank result > the Contract Detection Limit but the sample			
result < the Contract Detection Limit?			
5. Is the LCS recovery with contract acceptance criteria?			
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection			
Limit?			
8. Do the MS/MSD results and yields meet acceptance criteria?			
9. Do the duplicate sample results and yields meet acceptance			
criteria?			
C. Other			·
1. Are all Nonconformances included and noted?			
2. Are all required forms filled out?			
3. Was the correct methodology used?			
4. Was transcription checked?			
5. Were all calculations checked at a minimum frequency?			
6. Were units checked?			•

Second Level Review: Muyl all Clam Date: 15-07



Data Review/Verification Checklist RADIOCHEMISTRY, First Level Review

6/22/2007 10:36:09 AM

Lot No., Due Date:

QAS_RADCALCv4.8.26

J7E040342,J7E070107,J7E080312; 06/21/2007

Client, Site:

384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7171388; RTC99 Tc-99 by LSC

SDG, Matrix: W05172; WATER

ODG, Matrix. WOSTIZ, WATER			
8.0 Correction Calculation Protocol Used.	Yes	No	N/A
OK 8.01 The Appropriate Methods Were Used To Analyze the Samples	Yes	No	N/A
OK 8.02 Final Results Are in the Appropriate Activity Units	Yes	No	N/A
OK 8.03 Batch Contains the Required QC Appropriate for the Method	Yes	No	N/A
OK 8.04 The Correct Tracer and QC Vials Where Used in the Samples	Yes	No	N/A
Incorrect Tracer/Vial => JWEPW2AF TCSG<>TCSE Q:V9 8.05 Sample was Appropriately Traced Before or After Fractionating the Sample	() Yes	No	N/A
OK 8.06 At Least the Minimum Sample Volume Was Used	Yes	No	N/A
OK 8.07 The Correct Count Geometry was Used.	Yes	No	N/A
8.08 The Sample was Counted for the Minimum Count Time or CRDL was Achieved. OK	Yes	No	N/A
8.09 Method Blank is within Control Limits. OK	Yes	No	N/A
8.1 Comments:			
8.11 Matrix Blank is within Control Limits. No Matrix Blanks (MBlks) found in Batch!	Yes	No	N/A
8.12 Method Blank(s) < QAS Limit Value (No B Flag Necessary). OK	Yes	No	N/A
8.13 QAS Specified Duplicate Equation Value within Control Limits. OK (RPD)	Yes	No	N/A
8.14 LCS within Control Limits. OK	Yes	No	N/A
8.15 MLCS within Control Limits.	Yes	No	N/A
No Matrix Spikes (MLCS) found in Batch! 8.16 MS within Control Limits. OK	Yes	No	N/A
8.17 Tracer within Control Limits.	Yes	No	N/A
No Tracers found in Batch! 8.18 Samples are above Minimum Tracer Yield (No Failed Samples)	Yes	No	N/A
No Tracers found in Batch! 8.19 Sample Specific MDC <= CRDL. OK	Yes	No	N/A
8.2 Comments:	A.W. a.	***************************************	
8.21 Result < Lc, Activity Not Detected, U Flag.	Yes	No	N/A
No Limit Specified! 8.22 Result < Mdc, Activity Not Detected, U Flag. No Positive Results	Yes	No	N/A
OK Calc_IDL Not Calculated 8.23 Result <= Action Level, when Defined. OK; No Action Level Found => TC-99	Yes	No	N/A
OK; No Callin Level Found => TC-99 8.24 Result + 3s >=0, Not Too Negative.	Yeş	No	N/A
OK	V		
8.25 Counting Spectrum are within FWHM Limits. No FWHM found in Batch Data!	Yes	No	N/A
STL Richland	Page	 e 1	
	9		

8.26	Instruments have Current Calibrations.	Yes	No	N/A
8.27	Correct Count Library Used.	Yes	No	N/A
	No Count Library found in Batch Data!	·		V
8.28	Instrument Background within Limits at Time of Counting. (Not Applicable to this version. To be developed in later version.	nses	No	N/A
8.29	Instrument Check Source within Limits at the Time of Counting. (Not Applicable to this version. To be developed in later	v Yéess io	n heò .	N/A
8.3 (Comments: NCW 10-10Z00			
8.31	Results Blank Subtracted as Appropriate.	Yes	No	N/A
	OK .		carronal de Arrivirois	
	A. A. 2000)		

STL Richland QAS_RADCALCv4.8.26

First Level Review

Page 2

Date _



OC Batch Number: 7171388			
W05172			
Review Item	Yes (V)	No (1)	N/A (√)
A. Sample Analysis		1	11121(1)
1. Are the sample yields within acceptance criteria?			
2. Is the sample Minimum Detectable Activity < the Contract			
Detection Limit?		ļ	
3. Are the correct isotopes reported?		-	
B. QC Samples	/	1	
 Is the Minimum Detectable Activity for the blank result ≤ the 			
Contract Detection Limit?			}
2. Does the blank result meet the Contract criteria?		+	
3. Is the blank result < the Contract Detection Limit?	-	 	
4. Is the blank result > the Contract Detection Limit but the sample		-	
result < the Contract Detection Limit?			
5. Is the LCS recovery with contract acceptance criteria?			
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection		-	
Limit?			
8. Do the MS/MSD results and yields meet acceptance criteria?		ļ	
9. Do the duplicate sample results and yields meet acceptance			
criteria?			
C. Other			
1. Are all Nonconformances included and noted?			
2. Are all required forms filled out?			
3. Was the correct methodology used?			
4. Was transcription checked?			
5. Were all calculations checked at a minimum frequency?			
6. Were units checked?			
Comments on any "No" response: See MCM			

		,	
· · · · · · · · · · · · · · · · · · ·			
Second Level Review. Therryl a Adam	•	Date:	6-22-0-7

Clouseau Nonconformance Memo



NCM #: 10-10200

NCM Initiated By: Lisa Antonson
Date Opened: 06/22/2007

Date Closed:

Classification: Anomaly

Status: GLREVIEW

Production Area: Environmental - Prep

Tests: Tc-99 by LSC

Lot #'s (Sample #'s): J7E040342 (1,2,4),

J7E070107 (6), J7E080312

(1), J7E090000 (611),

QC Batches: 7171388,

Nonconformance: Other (describe in detail)
Subcategory: Other (explanation required)

Problem Description / Root Cause

Name Lisa Antonson Date

Description

06/22/2007

In the original count of this Tc99 batch the TSIE was out and the batch could not be calculated. It was shaken, rewiped and recounted. The TSIE was still out. After consideration by the QA Manager and Technical Director, the decision was made to extend the upper limits of the curve to 480. The samples were able to be calculated and are acceptable.

Corrective Action

Name

<u>Date</u>

Corrective Action

Lisa Antonson

06/22/2007

Upper limit was extended to 480.

Client Notification Summary

Client

Project Manager

Notified

Response How Notified

Note

Response

Response Note

Quality Assurance Verification

Verified By

Due Date

Status

Notes

This section not yet completed by QA.

Approval History

Date Approved

Approved By

Position

Date Printed: 6/22/2007 Page 1 of 1



Data Review/Verification Checklist RADIOCHEMISTRY, First Level Review

6/20/2007 4:04:19 PM

Lot No., Due Date:

QAS_RADCALCv4.8.26

J7E040342,J7E070107; 06/21/2007

Client, Site:

384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7129612; RTC99 Tc-99 by LSC

SDG, Matrix: W05172; WATER

อบ	G, Matrix: W05172; WATER			
	COC Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions?	Yes	No	N/A
	QC Batch Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?	Yes	No	N/A
2.2	Are the QC appropriate for the analysis included in the batch?	Yes	No	N/A
2.3	Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?	Yes	No	N/A
2.4	Does the Worksheets include a Tracer Vial label for each sample?	Yes	No	N/A
จ ก	QC & Samples			
3.1		Yes	No	N/A
3.2	Is the LCS result, yield, and MDA within contract limits?	Yes	No	N/A
3.3	Are the MS/MSD results, yields, and MDA within contract limits?	Yes	No	N/A
3.4	Are the duplicate result, yields, and MDAs within contract limits?	Yes	No	N/A
3.5	Are the sample yields and MDAs within contract limits?	Yes	No	N/A
4.0	Raw Data			
	Were results calculated in the correct units?	Yes	No	N/A
4.2	Were analysis volumes entered correctly?	Yes	No	N/A
4.3	Were Yields entered correctly?	Yes	No	N/A
4.4	Were spectra reviewed/meet contractual requirements?	Yes	No	N/A
4.5	Were raw counts reviewed for anomalies?	Yes	No	N/A
5.0	Other			
5.1	Are all nonconformances included and noted?	Yes	No	N/A
	Are all required forms filled out?	Yeş	No	N/A
5.3	Was the correct methodology used?	Yes	No	N/A
5.4	Was transcription checked?	Yes	No	N/A
	Were all calculations checked at a minimum frequency?	Yes	No	N/A
	Are worksheet entries complete and correct?	Yes	No	N/A
6.0	Comments on any No response:	o ta e reductivo do se responsa ano	засасомнясшим что Дичев	saudo-mesor estrolóficomo
	st Level Review May Date 6-30-01			
SIL	Richland	Page	e 1	



A. Sample Analysis 1. Are the sample yields within acceptance criteria? 2. Is the sample Minimum Detectable Activity < the Contract Detection Limit? 3. Are the correct isotopes reported? B. QC Samples 1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit? 2. Does the blank result meet the Contract criteria? 3. Is the blank result < the Contract Detection Limit? 4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?	Yes (√)	No (1)	N/A (√)
 Is the sample Minimum Detectable Activity < the Contract Detection Limit? Are the correct isotopes reported? QC Samples Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit? Does the blank result meet the Contract criteria? Is the blank result < the Contract Detection Limit? Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit? 			
 Is the sample Minimum Detectable Activity < the Contract Detection Limit? Are the correct isotopes reported? QC Samples Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit? Does the blank result meet the Contract criteria? Is the blank result < the Contract Detection Limit? Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit? 			
Detection Limit? 3. Are the correct isotopes reported? B. QC Samples 1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit? 2. Does the blank result meet the Contract criteria? 3. Is the blank result < the Contract Detection Limit? 4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			
 B. QC Samples 1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit? 2. Does the blank result meet the Contract criteria? 3. Is the blank result < the Contract Detection Limit? 4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit? 			
 Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit? Does the blank result meet the Contract criteria? Is the blank result < the Contract Detection Limit? Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit? 			
Contract Detection Limit? 2. Does the blank result meet the Contract criteria? 3. Is the blank result < the Contract Detection Limit? 4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			
Contract Detection Limit? 2. Does the blank result meet the Contract criteria? 3. Is the blank result < the Contract Detection Limit? 4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			1
3. Is the blank result < the Contract Detection Limit? 4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?	_/.		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?		1	
result < the Contract Detection Limit?			
5. Is the LCS recovery with contract acceptance criteria?			
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection	and the second		
Limit?			
8. Do the MS/MSD results and yields meet acceptance criteria?			
9. Do the duplicate sample results and yields meet acceptance			
criteria?			
C. Other			
1. Are all Nonconformances included and noted?			
2. Are all required forms filled out?			
3. Was the correct methodology used?	/		
4. Was transcription checked?			
5. Were all calculations checked at a minimum frequency?			
6. Were units checked?	/_		



Data Review/Verification Checklist

6/18/2007 4:14:34 PM

RADIOCHEMISTRY, First Level Review

Lot No., Due Date: J7E040306,J7E040342,J7E070107,J7E070112,J7E080313; 06/21/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7129620; RTRITIUM H-3 by LSC

8.0 t The Appropriate Methods Were Used To Analyze the Samples 8.0 t The Appropriate Methods Were Used To Analyze the Samples 8.0 c Final Results Are in the Appropriate Activity Units 8.0 c Final Results Are in the Appropriate Activity Units 8.0 c Final Results Are in the Appropriate Activity Units 8.0 c Final Results Are in the Appropriate For the Method 8.0 c Final Results Are in the Appropriate For the Method 8.0 c Final Results Are in the Appropriate For the Method 8.0 c Final Results Are in the Appropriate For the Method 8.0 c Final Results As propriately Traced Before or After Fractionating the Sample 8.0 c Final Results Methods Final Results Fin	SDG, Matrix: W05172; WATER	
8.01 The Appropriate Methods Were Used To Analyze the Samples OK R 8.02 Final Results Are in the Appropriate Activity Units OK R 8.03 Blatch Contains the Required QC Appropriate for the Method OK R 8.04 The Correct Tracer and QC Visis Where Used in the Samples OK R 8.05 Sample was Appropriately Traced Blatch or After Fractionating the Sample OK R 8.06 At Least the Minimum Sample Volume Was Used Aralyses Volume == JMA8814A 5.00-10.00 JWCCITAA	8.0 Correction Calculation Protocol Used.	Yes No N/A
8.02 Final Results Are in the Appropriate Activity Units OK 8.03 Baich Contains the Required QC Appropriate for the Method OK 8.04 The Correct Tracer and QC Vials Where Used in the Samples OK 8.05 Sample was Appropriately Traced Before or After Fractionating the Sample 8.06 AL Least the Minimum Sample Volume Was Used Analysis Variety and Appropriately Traced Before or After Fractionating the Sample 8.06 AL Least the Minimum Sample Volume Was Used Analysis Variety and Appropriately Traced Before or After Fractionating the Sample 9.06 AL Least the Minimum Sample Volume Was Used Analysis Variety and Appropriately	8.01 The Appropriate Methods Were Used To Analyze the Samples	Yes No N/A
8.03 Batch Contains the Required QC Appropriate for the Method Ok 8.04 The Correct Tracer and QC Vials Where Used in the Samples (Per No. N/A Ok 8.05 Sample was Appropriately Traced Before or After Fractionating the Sample (Per No. N/A Ok 8.05 Sample was Appropriately Traced Before or After Fractionating the Sample (Per No. N/A Ok 8.05 Sample was Appropriately Traced Before or After Fractionating the Sample (Per No. N/A Ok 8.05 Sample Was Appropriately Traced Before or After Fractionating the Sample (Per No. N/A Ok 8.05 Sample Was Appropriately Traced Before or After Fractionating the Sample (Per No. N/A Ok 8.05 Sample Was Appropriately Traced Before or After Fractionating the Sample (Per No. N/A Ok 8.05 Sample Was Appropriately Traced Before Ok 8.05 Sample Was Appropriately Traced Before Ok 8.05 Sample Was Appropriately Was Used (Per No. N/A Sample Was Appropriately Was Used (Per No. N/A Sample Was Appropriately Was Used (Per No. N/A Sample Was Appropriately Was Approp	8.02 Final Results Are in the Appropriate Activity Units	Yes No N/A
8.04 The Correct Tracer and QC Viais Where Used in the Samples OK Sample was Appropriately Traced Before or After Fractionating the Sample OK Sample was Appropriately Traced Before or After Fractionating the Sample OK Sample was Appropriately Traced Before or After Fractionating the Sample OK Sample was Appropriately Traced Before or After Fractionating the Sample OK Sample Was Used Analysis Volume> WASSIAA 5.00-10.00 JMCMINIAA SVPISS-SVPI0100 JMCMIN	8.03 Batch Contains the Required QC Appropriate for the Method	Yes No N/A
8.05 Sample was Appropriately Traced Before or After Fractionating the Sample OK OK 8.06 At Least the Minimum Sample Volume Was Used Analysis Volume — JNASBIA 5.00-10.00 JNACLT 48.500-10.00 JNACLT 48.500-10	8.04 The Correct Tracer and QC Vials Where Used in the Samples	Yes No N/A
No.	8.05 Sample was Appropriately Traced Before or After Fractionating the Sample	Yes No N/A
8.07 The Correct Count Geometry was Used. Count Geometry = JWL3V1AF SVP19/5 \$\infty \SVP10/10 \) JWL3V1AG SVP19/5-SVSP10/10 JWL3V1AG SVP15/5-SVSP10/10 JWL3V1AG SVP15/5-SVSP10/10 JWL3V1AG SVP15/5-SVSP10/10 JWL3V1AG SVP15/5-SVSP10/10 JWCJC1AA SVP15/5-SVP10/10 JWCJC1AA	8.06 At Least the Minimum Sample Volume Was Used Analysis Volume => JWA581AA 5.00<10.00 JWCHW1AA 5.00<10.00 JWCJC1AA 5.00<10.00 JWCJM1AA 5.00<10.00 JWEPC1AA 5.00<10.00 JWEPG1AA 5.00<10.00 JWEPK1AA 5.00<10.00 JWEPP1AA 5.00<10.00 JWEPP1AA 5.00<10.00 JWEPQ1AA 5.00<10.00 JWEPW1AA 5.00<10.00 JWEPW1AA 5.00<10.00 JWEQK1AA 5.00<10.00	Yes No N/A
3.08 The Sample was Counted for the Minimum Count Time or CRDL was Achieved. OK 3.09 Method Blank is within Control Limits. OK 3.11 Comments: 3.11 Matrix Blank is within Control Limits. OK 3.12 Method Blank(s) < QAS Limit Value (No B Flag Necessary). OK 3.13 QAS Specified Duplicate Equation Value within Control Limits. OK (RPD) 3.14 LCS within Control Limits. OK STI Richland	8.07 The Correct Count Geometry was Used. Count Geometry => JWL3V1AF SVP15/5<>SVP10/10 JWL3V1AG SVP15/5<>SVP10/10 JWL3V1AA SVP15/5<>SVP10/10 JWL3V1AA SVP15/5<>SVP10/10 JWA581AA SVP15/5<>SVP10/10 JWCHW1AA SVP15/5<>SVP10/10 JWCJC1AA SVP15/5<>SVP10/10 JWCJC1AA SVP15/5<>SVP10/10 JWEPC1AA SVP15/5<>SVP10/10 JWEPC1AA SVP15/5<>SVP10/10 JWEPG1AA SVP15/5<>SVP10/10 JWEPK1AA SVP15/5<>SVP10/10 JWEPK1AA SVP15/5<>SVP10/10 JWL3V1AH SVP15/5<>SVP10/10 JWL3V1AD SVP15/5<>SVP10/10 JWL3V1AD SVP15/5<>SVP10/10 JWEPP1AA SVP15/5<>SVP10/10 JWEPP1AA SVP15/5<>SVP10/10 JWEPV1AA SVP15/5<>SVP10/10 JWEPV1AA SVP15/5<>SVP10/10 JWEPW1AA SVP15/5<>SVP10/10 JWEPW1AA SVP15/5<>SVP10/10 JWEPW1AA SVP15/5<>SVP10/10	Yes No N/A
3.10 Method Blank is within Control Limits. OK 3.11 Matrix Blank is within Control Limits. OK 3.12 Method Blank(s) < QAS Limit Value (No B Flag Necessary). OK 3.13 QAS Specified Duplicate Equation Value within Control Limits. OK (RPD) 3.14 LCS within Control Limits. OK	8.08 The Sample was Counted for the Minimum Count Time or CRDL was Achieved.	Yes No N/A
3.1 Comments: 3.1 Matrix Blank is within Control Limits. OK 3.12 Method Blank(s) < QAS Limit Value (No B Flag Necessary). OK 3.13 QAS Specified Duplicate Equation Value within Control Limits. OK (RPD) 3.14 LCS within Control Limits. OK	8.09 Method Blank is within Control Limits.	Yes No N/A
OK 3.12 Method Blank(s) < QAS Limit Value (No B Flag Necessary). OK 3.13 QAS Specified Duplicate Equation Value within Control Limits. OK (RPD) 3.14 LCS within Control Limits. OK OK	8.1 Comments:	Manii
And the state of t	8.11 Matrix Blank is within Control Limits. OK	Yes No N/A
OK (RPD) 3.14 LCS within Control Limits. OK STIL Richland	8.12 Method Blank(s) < QAS Limit Value (No B Flag Necessary).	Yes No N/A
OK ST. Dichland		Yes No N/A
TI Dichland	8.14 LCS within Control Limits. OK	Yes No N/A
	CTI. Diabland	

8.15 MLCS within Control Limits.	Yes	No	N/A
OK	V	NI.	NI/A:
8.16 MS within Control Limits.	Yes	NO	N/A
No Matrix Spike Samples (MS) found in Batch!			V
8.17 Tracer within Control Limits.	Yes	No	N/A
No Tracers found in Batch!			₩.
8.18 Samples are above Minimum Tracer Yield (No Failed Samples) No Tracers found in Batch!	Yes	No	N/A
8.19 Sample Specific MDC <= CRDL.	Yes	Nο	N/A
OK	M		, , .
8.2 Comments:	1. N		
8.21 Result < Lc, Activity Not Detected, U Flag.	Yes	Nο	N/A
No Limit Specified!			V
8.22 Result < Mdc, Activity Not Detected, U Flag.	Yes	Nο	N/A
No Positive Results	And I		1477
OK Calc_IDL Not Calculated	- M		
8.23 Result <= Action Level, when Defined.	Yes	No	N/A
OK; No Action Level Found => H-3	V		
OK; No Callin Level Found => H-3			
8.24 Result + 3s >=0, Not Too Negative.	Yes	Nο	N/A
OK	J		
8.25 Counting Spectrum are within FWHM Limits.	Vac	No	N/A
No FWHM found in Batch Data!	103	140	7
	Voc	Nio	N/A
8.26 Instruments have Current Calibrations.	162	IVO	IV/A
8.27 Correct Count Library Used.	Yes	No	N/A
No Count Library found in Batch Data!			W.
8.28 Instrument Background within Limits at Time of Counting. (Not Applicable to this version. To be developed in later vers	on tés	No	N/A
8.29 Instrument Check Source within Limits at the Time of Counting. (Not Applicable to this version. To be developed in late	r∨ Yéess io	on Neò .	N/A
8.3 Comments:			
o.o oonmono,			
			NI/A
	Yes	No	IN/A
8.31 Results Blank Subtracted as Appropriate. OK	Yes	No	IV/A

First Level Review

STL Richland

QAS_RADCALCv4.8.26

___ Date

Date 6/18/87



Review Item	Yes (√)	No (1)	N/A (V)
A. Sample Analysis	(,)	11.0(1)	11/21 (4)
1. Are the sample yields within acceptance criteria?			
2. Is the sample Minimum Detectable Activity < the Contract			
Detection Limit?			
3. Are the correct isotopes reported?			
B. QC Samples			
 Is the Minimum Detectable Activity for the blank result ≤ the 			
Contract Detection Limit?			
2. Does the blank result meet the Contract criteria?			
3. Is the blank result < the Contract Detection Limit?			
4. Is the blank result > the Contract Detection Limit but the sample			
result < the Contract Detection Limit?			
5. Is the LCS recovery with contract acceptance criteria?			
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection			
Limit?			
B. Do the MS/MSD results and yields meet acceptance criteria?			
Do the duplicate sample results and yields meet acceptance			
riteria?			
C. Other			
. Are all Nonconformances included and noted?			
2. Are all required forms filled out?			
3. Was the correct methodology used?			
4. Was transcription checked?			
5. Were all calculations checked at a minimum frequency?			
6. Were units checked?			·
Comments on any "No" response:			
,			*
		,	



Data Review/Verification Checklist RADIOCHEMISTRY, First Level Review

6/18/2007 4:05:12 PM

Lot No., Due Date: J

J7E070109; 06/21/2007

Client, Site:

384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7129621; RH3EE H3EE by LSC

SDG, Matrix: W05172; WATER

1.1	COC Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions?	V	No	N/A
2.0 2.1	QC Batch Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?		No	N/A
2.2	Are the QC appropriate for the analysis included in the batch?	Yes	No	N/A
2.3	Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?	Yes	No	N/A
2.4	Does the Worksheets include a Tracer Vial label for each sample?	Yes	No	N/A
	QC & Samples Is the blank results, yield, and MDA within contract limits?		No	N/A
3.2	Is the LCS result, yield, and MDA within contract limits?	Yes	No	N/A
3.3	Are the MS/MSD results, yields, and MDA within contract limits?	Yes	No	N/A
3.4	Are the duplicate result, yields, and MDAs within contract limits?	Yes	No	N/A
3.5	Are the sample yields and MDAs within contract limits?	Yes	No	N/A
4.0 4.1	Raw Data Were results calculated in the correct units?	Yes	No	N/A
4.2	Were analysis volumes entered correctly?	Yes	No	N/A
4.3	Were Yields entered correctly?	Yes	No	N/A
4.4	Were spectra reviewed/meet contractual requirements?	Yes	No	N/A
4.5	Were raw counts reviewed for anomalies?	Yes	No	N/A
	Other Are all nonconformances included and noted?			N/A
5.2	Are all required forms filled out?	Yes	No	N/A
5.3	Was the correct methodology used?	Yes	No	N/A
5.4	Was transcription checked?	Yes	No	N/A
5.5	Were all calculations checked at a minimum frequency?	Yes	No	N/A
5.6	Are worksheet entries complete and correct?	Yes	No	N/A
6.0	Comments on any No response:	. 		

First Level Review

STL Richland QAS_RADCALCv4.8.26 Date 0/8/07

Page 1



1. Are all Nonconformances included and noted?

Data Review Checklist RADIOCHEMISTRY Second Level Review

7129621

W05172	•		
Review Item	Yes (√)	No (V)	N/A (√)
A. Sample Analysis			1 2012 (1)
1. Are the sample yields within acceptance criteria?			
2. Is the sample Minimum Detectable Activity < the Contract			
Detection Limit?		i .	.
3. Are the correct isotopes reported?			
B. QC Samples			
 Is the Minimum Detectable Activity for the blank result ≤ the 		1	
Contract Detection Limit?			
2. Does the blank result meet the Contract criteria?			
3. Is the blank result < the Contract Detection Limit?	/.		
4. Is the blank result > the Contract Detection Limit but the sample			
result < the Contract Detection Limit?			
5. Is the LCS recovery with contract acceptance criteria?			
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection			
Limit?			
8. Do the MS/MSD results and yields meet acceptance criteria?			
9. Do the duplicate sample results and yields meet acceptance			
criteria?		}	}
		ļ	

2. Are all required forms filled out?			
3. Was the correct methodology used?			
4. Was transcription checked?			
5. Were all calculations checked at a minimum frequency?			
6. Were units checked?	1//	,	
Comments on any "No" response:			
Samuel Land B. S. S. S. Lucal C. C.		1 10 14	



Data Review/Verification Checklist RADIOCHEMISTRY, First Level Review

6/20/2007 10:56:19 AM

Page 1

Lot No., Due Date:

J7E040342,J7E070109,J7E070107,J7E080313; 06/21/2007

Client, Site:

384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7129616; RUNAT UNat by KPA

SDG, Matrix:

STL Richland

QAS_RADCALCv4.8.26

W05172; WATER

•	G, Matrix: W05172; WATER			
1.0 1.1	COC Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions?	Yeş V	No	N/A
2.0 2.1	QC Batch Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?	Yes	No	N/A
2.2	Are the QC appropriate for the analysis included in the batch?	Yes	No	N/A
2.3	Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?	Yes	No	N/A
2.4	Does the Worksheets include a Tracer Vial label for each sample?	Yes	No	N/A
	QC & Samples Is the blank results, yield, and MDA within contract limits?	Yes	No	N/A
3.2	Is the LCS result, yield, and MDA within contract limits?	Yes	No	N/A
3.3	Are the MS/MSD results, yields, and MDA within contract limits?	Yes	No	N/A
3.4	Are the duplicate result, yields, and MDAs within contract limits?	Yes	No	N/A
3.5	Are the sample yields and MDAs within contract limits?	Yeş	No	N/A
	Raw Data Were results calculated in the correct units?	Yea	No	N/A
4.2	Were analysis volumes entered correctly?	Yes	No	N/A
4.3	Were Yields entered correctly?	Yes	No	N/A
4.4	Were spectra reviewed/meet contractual requirements?	Yes	No	N/A
1.5	Were raw counts reviewed for anomalies?	Yes	No	N/A
	Other Are all nonconformances included and noted?	Yes	No	N/A
5.2	Are all required forms filled out?	Yes	No	N/A
5.3	Was the correct methodology used?	Yes	No	N/A
5.4	Was transcription checked?	Yes	No	N/A
5.5	Were all calculations checked at a minimum frequency?	Yes	No	N/A
5.6	Are worksheet entries complete and correct?	Yeş	No	N/A
	Comments on any No response:	and and the state of the state	may and ground	.00.00000.00



OC Batch Number: 1/276/6		•	
OC Batch Number: 7/29616 W05172			
Review Item	Yes (V)	No(V)	N/A (\(\)
A. Sample Analysis		1 - 1 - ()	12,121(1)
1. Are the sample yields within acceptance criteria?			
2. Is the sample Minimum Detectable Activity < the Contract		<u> </u>	-
Detection Limit?			
3. Are the correct isotopes reported?			
B. QC Samples			
1. Is the Minimum Detectable Activity for the blank result ≤ the			
Contract Detection Limit?			
2. Does the blank result meet the Contract criteria?			
3. Is the blank result < the Contract Detection Limit?			
4. Is the blank result > the Contract Detection Limit but the sample			
result < the Contract Detection Limit?			
5. Is the LCS recovery with contract acceptance criteria?			
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection			
Limit?			
8. Do the MS/MSD results and yields meet acceptance criteria?			
9. Do the duplicate sample results and yields meet acceptance			1
cniteria?		{	
C. Other	 - ′ 		
1. Are all Nonconformances included and noted?			
2. Are all required forms filled out?			+ -
3. Was the correct methodology used?			
4. Was transcription checked?			
5. Were all calculations checked at a minimum frequency?			-
6. Were units checked?	 		
Comments on any "No" response:			
•			

PNNL J7 E 040299
W05/72
Due 06.18.07

C.O.C.# T07 027 0

//	1051	70	}		CHAI	N OF (CUSTODY	(/SA	MPLE ANALYS	SIS R	EQUEST		İ	10/-02	/-0
Due	0051	8.0	7										Page	<u>1</u> of <u>1</u>	
Collec iduot Hanio	rd					Contact/Re Dot Stew				Т	Celephone No. 509-376-5056	MSIN FAX			
SAF No. 107-027						Sampling C Hanford S)rigin			P	urchase Order/C	Charge Code			
Project Title			#0.				F -N- 506	(>	I	Ice Chest No. ERC Temp.				
2ZP1-LOL FEBR Shinned To (Lah)	UARY 2007	nicial circle de la constante d				Method of		Bill of Lading/Air Bill No.			Bill No.				
Severn Trent Inco Protocol	ornorated Ric	hland	Service Constitution Constituti	a. Marketine Months and American		Govt. Ve		Priority: 45 Days Offsite Property No.							
CERCLA POSSIBLE SAMPLE HAZARDS/REMARKS ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 Cl releasable per DOE Order 5400.5 (1990/1993)								SP) Al	ECIAL INSTRUCTIONS II Labs except WSCF: Batch all PNN osure of 14 days. SCF: Batch all PNNL GW samples	•	submitted under A,	G, I, S, and W 07	tivity Exemptic SAFs into one SI		
Sample No.	Lab ID	*	Date	Time	No/Type	Container			Sample Analy	lysis]	Preservative	
B1M6K6		W	5/3/7	1127	1x20-mL	. P	Activity Scan			Vone					
B1M6K6		W	V	4	2x4000-	mL G/P	I129LL_SEP_LE	EPS_C	GS_LL: I-129 (1)			Vone		4.000	
Relinquished By	Print		Sign		Date	Time 30	Received By			WAS			Ma	trix *	
Relinquished By	Hanford S		HANN THE	(0 3 20		/S /C	ERIC Da	irby	Print Sign En Darby MA	Y 0 3	2007 /5 3 °Date/Time	Sī.	= Soil = Sediment = Solid = Sludge = Water	DS = Dr DI = Dr T = Ti WI = W L = Lie	rum Liani ssue 'ine
Relinquished By				<u>-</u>	Date	/Time	Received By				Date/Time		= Oil = Air	$V = V\epsilon$ $X = Ot$	egetation ther
Relinquished By					Date	/Time	Received By				Date/Time	I		* 44 **	
FINAL SAMPL DISPOSITION		Metho	d (e.g., Return to	customer, pe	r lab procedui	re, used in proc	eess)		Disposed By				Date/Ti	me	****



Date/Tir	me Received:	5/3/07 1530								
Client:_	PGW	SDG#:_W05	172 NA[] SAF#:	[07-027 NA[]						
Work O	rder Number: 🗸 🗸	1E040299	Chain of Custody # <u>IO</u>	7-027-8						
Shipping	g Container ID:		Air Bill #							
1.	Custody Seals on	shipping container intact?	NA [] Yes [] No []						
2.	Custody Seals date	ted and signed?	NA [] Yes [YNo []						
3.	Chain of Custody record present? Yes [*] No []									
4.	Cooler températu	re:NA [5.V	ermiculite/packing materia	als is NA [t] Wet [] Dry []						
6.	Number of sampl	es in shipping container:								
.7.	Sample holding times exceeded? NA [Yes [] No []									
8.	Samples have:tapehazard labelscustody sealsappropriate samples labels									
9.	Samples are:in good corbroken	ndition	leaking have air bu (Only for sample	bbles s requiring head space)						
10.	Sample pH taken	? NA[] pH<2	pH>2[] pH>9[]						
11.		Sample Collector Listed? on only. No corrective act		Yes-[] No []						
12.	Were any anomal	ies identified in sample rec	eipt?	Yes [] Norf						
13.	Description of an	omalies (include sample nu	mbers):							
Sample	Custodian:	En Tarley	Date: 5/3/0	7 1530						
Clie	ent Sample ID	Analysis Requested	Condition	Comments/Action						
Client In	formed on	by	Person contacted_	•						
[] No a	action necessary; pro	ocess as is.								
Project M	Manager		Date							
LS-023,	9/03, Rev. 5									

PNNL J7E040342	
1.105/10	
Due 06 180	7

C.O.C.#

rivilo /	WQ51	72	6,07		CHAIN (OF CUSTODY/	SAMPLE ANALY	SIS REQUEST		W07-005-38		
Collector T SICKL	ord Due	06-1	8-0/		Cont	act/Requester		Telephone No.	MSIN	Page <u>1</u> of <u>1</u> FAX		
Fig. 1. OPUIL	/ E					ot Stewart		509-376-5056		The state of the s		
SAF No. W07-005						pling Origin anford Site		Purchase Order/C	r/Charge Code			
Project Title						HNF-N-506-	2	Ice Chest No M	12-	72— Temp.		
RCRA, MAY 20	07											
Shinned To (Lab)		AND WOOD SHOP	NOTE THE RESERVE OF THE PERSON			nod of Shipment		Bill of Lading/Air	Bill No.			
Severn Trent Inc. Protocol	ornorated, Ric	hland	ne taranse transportent announcement	AND THE PROPERTY OF THE COLO	GG	ovt. Vehicle		No.				
RCRA						Pri	ority: 45 Days	Offsite Property I	10.			
POSSIBLE SAMP ** ** Contains Rad releasable per DOE Or	lioactive Materia	al at con		are not regula	ted for transportation	n per 49 CFR but are not	SPECIAL INSTRUCTIONS All Labs except WSCF: Batch all s of 14 days. WSCF: Batch all GW samples sub	•	and W 07 SAFs in	vity Exemption: Yes ☑ No L to one SDG, not to exceed SDG closure		
Sample No.	Lab ID	*	Date	Time	No/Type Conta	ainer	Sample Ar	nalysis		Preservative		
B1N4J6		W	5-3-07	1213	1x20-mL P	Activity Scan	-	I	None			
B1N4J6	†	w	,		1x4000-mL G	G/P GAMMALL_GS:	List-1 (9)	1	HNO3 to pH <2			
B1N4J6		l w			1x500-mL G/				-HNO3 to pH <2			
B1N4J6	 	W		8/	1x500-mL P	TC99_ETVDSK_			HCl to pH <2	and the state of t		
D114-00		+''		<u> </u>	TXOOO TILL T	1,000_21,000	. 10 00 (1)		70. to p			
								TWCGI				
			<u> </u>						····	4.44.5.44.004.004.00		
												
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<u> </u>												
Relinquished By Fluor Hanto T SICKI Relinquished By			Sign	MA	Date/Time / Pate/Time / Date/Time	Received By ERIC DIR Received By	Print Sign	MAY 0 3 200 Date/Time	S = SE = SO =	Matrix * Soil DS = Drum So Sediment DL = Drum Lic Solid T = Tissue Sludge WI = Wine		
Relinquished By					Date/Time	Received By	11 A 1 A 1 A 1 A 1 A 1 A 1 A 1 A 1 A 1	Date/Time	W = O =	Water I. = Liquid Oil V = Vegetatic Air X = Other		
Relinquished By	www.mana.add.d+V-t.				Date/Time	Received By		Date/Time	I	0.0 E-7707-091-1		
FINAL SAMPL DISPOSITION		Method	(e.g., Return to	o customer, per	lab procedure, used	d in process)	Disposed By			Date/Time		

PNNL	J7E040342
	W05172
	Due 06-18-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C.# W07-005-62

/	Due 06.	18-0	7										Page	<u>1</u> of <u>1</u>	
CollectoFiuor Hani	ford						Contact/Red			Т	Selephone No. 509-376-5056	MSII	N FA	X	.]
SAF No.				······································			Sampling O	rigin		P	Purchase Order/Charge Code				
W07-005 Project Title					W		Hanford S		- 2	1	ce Chest No.		Temp.		
RCRA, MAY 200	07						HNF-N-506 8				SKLNS				
Shinned To (Lah) Severn Trent Inco	amorated Die	blond		KIRIDIAN MARKANIA	and out the second second			Method of Shipment Govt. Vehicle			ill of Lading/Ai	r Bill No.			
Protocol RCRA	imoraiea. Kie	шипо	Western Complete Act Conference	150000000000000000000000000000000000000			Govi. Vei				Offsite Property	operty No.			
POSSIBLE SAMPLE HAZARDS/REMARKS ** ** Contains Radioactive Material at concentrations that are not regulated for transporteleasable per DOE Order 5400.5 (1990/1993)								CFR but are not	SPECIAL INSTRUCTIONS All Labs except WSCF: Batch all s of 14 days. WSCF: Batch all GW samples subr	-	ted under A, G, I, S	, and W 07 SAFs i	tivity Exemption nto one SDG, no		
Sample No.	Lab ID	*	Date	T	irne	No/Type	Container		Sample An	nalysis				Preservative	
B1N4L5		W	2-3-07	199	35	1x20-mL	Р	Activity Scan				None			**************************************
B1N4L5		w	1	1	1	1x4000-ı	nL G/P	GAMMALL_GS: L	_ist-1 (9)	HNO3 to pH <	2		***		
B1N4L5		W		1 7		1x500-m	L G/P	UTOT_KPA: Urar	nium (1)	HNO3 to pH <	2				
B1N4L5		w	-t-	\Box		1x500-m	LΡ	TC99_ETVDSK_I	LSC: Tc-99 (1)		HCl to pH <2				
B1N4L5		w	1	14		1x1000-i	nL P	906.0_H3_LSC: 1	Fritium (1)			None			
										TWCH	(4)				***************************************
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Relinquished By Fluor Hanfe P. T. SICKI Relinquished By	ord Prim	4	1 1 1 1 1 1 1 1 1 1		MAY			Received By Received By	Print Sign Gy En Domby	MAY	Date/Time Date/Time	S SE SO SL	Ma = Soil = Sediment = Solid = Sludge = Water	DI = I $T = I$ $WI = V$	Drum Solid Drum Liaui Fissue Wine Liauid
Relinquished By						Date/	Time	Received By	A STATE OF THE STA		Date/Time	O :	= Water = Oil = Air	V = 1	Vegetation Other
Relinquished By						Date/	Time	Received By			Date/Time				
FINAL SAMPL DISPOSITION	1	Method	(e.g., Return t	o custo	mer, per	lab procedur	e, used in proc	ess)	Disposed By				Date/Ti	me	

PNNL J7E040342 W05172	
Due 06-18-07	

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C.# W07-005-70

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Collector Fluor Har	oforci	***************************************			(Contact/Rec			Telephone No		N FAX	ζ	
SAF No. 1. SICI W07-005	Œ		***************************************		s	Dot Stewa Sampling O Hanford S	rigin		i	er/Charge Code	1		
Project Title RCRA, MAY 20	07						Site #WF- N-576-8 Ice Chest No. 36			KINS	Temp.		
Shinned To (Lab)		Na District Contractor	*******************************		N	Aethod of S	Shipment Bill of Lading/Air			/Air Bill No.	r Bill No.		
Severn Trent Inc. Protocol	ornorated. Ric	hland	PORTOTORISMONIA PORTOTORIO PORTOTORIO	TO COMPANY TO COMPANY COMPANY		Govt. Vel	Oct., p				Vo.		
RCRA							Pric	rity: 45 Days					
POSSIBLE SAMPLE HAZARDS/REMARKS ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 releasable per DOE Order 5400.5 (1990/1993)							CFR but are not	SPECIAL INSTRUCTIONS All Labs except WSCF: Batch all sa of 14 days. WSCF: Batch all GW samples subn		I, S, and W 07 SAFs	tivity Exemption into one SDG, not		
Sample No.	Lab ID	*	Date	Time	No/Type (Container		Sample An	alysis		Pı	reservative	
B1N4M0		W	5-3-07	1056	1x20-mL	Р	Activity Scan			None			
B1N4M0		W		ſ	3x1000-m	ıL G/P	TC99_SEP_LSC:	Tc-99 (1)	HCl to pH <2				
B1N4M0		W			1x4000-m	L G/P	GAMMALL_GS: L	ist-1 (9)	HNO3 to pH <	HNO3 to pH <2			
B1N4M0		W			1x500-mL	. G/P	UTOT_KPA: Uran	ium (1)	HNO3 to pH <	HNO3 to pH <2			
B1N4M0		W		4	1x1000-m	ıL P	906.0_H3_LSC: T	ritium (1)		None	one		
		11	7									****	
		┾╢						<u> </u>	CJC				
		\vdash											
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	1									<u> </u>			
Relinquished By Fluor Ha R. T. SIC	niford Prim	<u> </u>	1		Date/Ti	ime /5 3 <i>0</i>	Received By ERIC Dare	Print Sign	MAY 032		Matr = Soil = Sediment	DS = Dr. DL = Dr.	
Relinquished By					Date/T	ime	Received By	·	Date/Tin	SO SL	= Solid = Sludge = Water	T = Tis WI = Wi I, = Lic	ssue ine
Relinquished By					Date/T	ime	Received By $Date/Time \qquad O = Oil \qquad V \\ A = Air \qquad X$				egetation her		
Relinquished By	****				Date/T	ime	Received By		Date/Tin	ne			
FINAL SAMPL DISPOSITION		Method	l (e.g., Return to	o customer, pe	er lab procedure,	used in proce	ess)	Disposed By			Date/Tim	e	

PNNL J72	E040 W05	34 17.	2	СНА	AIN OF	CUSTODY/	ı	C.O.C.# W07-005-78 Page 1 of 1			
Collector T. SICH	ilord a =				Contact/Re			Telephone No.	MSIN	FAX	
AF No.	VLE .				Dot Stew Sampling (509-376-5056 Purchase Order		White the second	
W07-005					Hanford						
Project Title RCRA, MAY 20	07				j+ 1	NF-N-SUE	8	Ice Chest No	nc-137 10	mp.	
Shinned To (Lab)	10101200000000000000000000000000000000		es de la contractica del la contractica del la contractica de la c		Method of			Bill of Lading/A			
<u> Severn Trent Inc</u> Protocol RCRA	ornorated, Ric	niana	ecologii Cigara, il Nama ka de de Silli Prilicido de persona de confessibilitações provincias	g mengradjet telescomen bestrijensejde solventejnskip kej se procedition kan de den	Govt. Ve		ority: 45 Days	Offsite Property	v No.		
** ** Contains Raceleasable per DOE On	lioactive Materia	l at con	centrations that	are not regulated for tra	nsportation per 49	9 CFR but are not	SPECIAL INSTRUCTIONS All Labs except WSCF: Batch all samp of 14 days. WSCF: Batch all GW samples submitte		S, and W 07 SAFs into one	Exemption: Yes V No	
Sample No.	Lab ID	*	Date	Time No/T	ype Container		Sample Analys	sis		Preservative	
B1N4M5		W	5-3-01	1242 1x20	mL P	Activity Scan			None		
B1N4M5		W			00-mL G/P	GAMMALL_GS: L	ist-1 (9)		HNO3 to pH <2		
B1N4M5		W	1	1x50)-mL G/P	UTOT_KPA: Uran	JTOT_KPA: Uranium (1) HNO3 to pH <				
B1N4M5		W		1x50)-mL P	TC99_ETVDSK_L	TC99_ETVDSK_LSC: Tc-99 (1) HCl to pH <				
D 4114145	1	W	V	1x10	00-mL P	906.0_H3_LSC: T	ritium (1)		None		
B1N4M5	.	1				1					
B1N4M5							-7/	i)c Tm			
B1N4M5							JU	UCJM			
BIN4M5							J	UCJM			
BIN4M5							JU	UCJM			
BIN4M5							J	UCJM			
BIN4M5							JU	UCJM			
BINAMS							JU	UCJM			
BINAMS							<i>Ju</i>	UCJM			

Date/Time

Date/Time

Disposal Method (e.g., Return to customer, per lab procedure, used in process)

Received By

Received By

Relinquished By

Relinquished By

Relinquished By

FINAL SAMPLE

DISPOSITION

DS = Drum Solid DL = Drum Liqui

= Tissue WI = Wine = Liquid = Vegetation = Other

= Soil

Date/Time

Date/Time

Date/Time

Disposed By

S = Soil
SE = Sediment
SO = Solid
SI = Sludge
W = Water
O = Oil
A = Air

Date/Time



Date/Ti	me Received: 5/3/6	ST 1530			
Client:_	POW	SDG#: W05/7	<u> 3</u> NA[] S	AF#: <u>WO7-C</u>	005NA[]
Work O	order Number: <u>77E</u>	40342 C	hain of Custody #	10-FOW #	35-38, W
Shippin	g Container ID:	A	ir Bill #		Tripo manufagya ayan ayan ma
1.	Custody Seals on shipp	oing container intact?		NA[] Yes[]	No []
2.	Custody Seals dated ar	nd signed?		NA[] Yes []	No []
3.	Chain of Custody reco	rd present?		Yes [4]	No []
4.	Cooler temperature:	NA [J 5.Ver	rmiculite/packing	materials is NA [Wet[]Dry[]
6.		shipping container:			
7.	Sample holding times	exceeded?		NA [] Yes []	No []
8.	Samples have:tapecustody seals			ard labels ropriate samples la	abels
9.	Samples are:in good conditiobroken	n 	***************************************	king e air bubbles samples requiring	head space)
10.	Sample pH taken?	NA[] pH<2[) pH>2[]	pH>9[]	
11.	Sample Location, Sam *For documentation or	ple Collector Listed? * nly. No corrective action	n needed.	Yes [i]	No []
12.	Were any anomalies id	entified in sample receip	ot?	Yes []	No []
13.	Description of anomal	es (include sample num	bers):		
Sample	Custodian: £	Darby	Date: 5	13/07 15	30
Clie	ent Sample ID	Analysis Requested	Condition	Con	nments/Action
Client In	formed on	by	Person con	tacted	,
	action necessary; process	•			
	Manager		Date		
1 5 022	0/03 Pay 5				

PNNL JTEO	70107 5172
Due	06.18.07

C.O.C.# W07_005_46

<i>i</i>).	206.1	ζ .Λ	7		CHAI	NOF	CUSTODYA	SAMPLE ANALY	SIS REQUEST		7707-003-		
	or Hanford	0			····				Tr. J L NT.	MSIN	Page <u>1</u> of <u>1</u> FAX		
	: SICKLE					Contact/Re Dot Stew			Telephone No. 509-376-5056		FAX		
SAF No. W07-005						Sampling O Hanford S			Purchase Order				
Project Title RCRA, MAY 20	07						F-N:50	16 E	Ice Chest No Sv	mi 13.) Temp.			
Shinned To (Lab)						Method of	Shipment		Bill of Lading/A	ir Bill No.			
Severn Trent Inco	ornorated, Ric	hland				Govt. Ve			Offsite Property	, No			
Protocol RCRA							Prio	rity: 45 Days					
** ** Contains Rad releasable per DOE Or	ioactive Materia	l at cor	centrations that	are not regula	ted for transp	ortation per 49	CFR but are not	SPECIAL INSTRUCTIONS All Labs except WSCF: Batch all s of 14 days. WSCF: Batch all GW samples subi	•	S, and W 07 SAFs in	ivity Exemption: Yes 🗹 Nato one SDG, not to exceed SDG c		
Sample No.	Lab ID	*	Date	Time	No/Type	Container		Sample An	nalysis	,	Preservative		
B1N4K1	7 7 7 7 7						Activity Scan			None			
B1N4K1		W	(orusa)		3x1000-	mL G/P	TC99_SEP_LSC:	Tc-99 (1)		HCl to pH <2			
B1N4K1		W			1x4000-	mL G/P	GAMMALL_GS: L	ist-1 (9)		HNO3 to pH <2			
B1N4K1		W			1x500-m	nL G/P	UTOT_KPA: Uran	ium (1)		HNO3 to pH <2 HNO3 to pH <2			
B1N4K1		W			1x1000-	1x1000-mL P 9310_ALPHABETA_GPC: Gross Beta (1)							
B1N4K1		W	•		1x1000-	x1000-mL P 906.0_H3_LSC: Tritium (1)							
									JWEPC				
		1										,	
				2/									
Relinquished By R. T. SICK Relinquished By Relinquished By			Sign		MAY () Date	/Time #//0 4 2007 /Time	Received By Received By Received By	Print Sign	MAY 0 4 21 Date/Time Date/Time	S = SE = SO = SI = O = O =	: Solid	rum Liaui issue ine iauid egetation	
Relinquished By					Date	/Time	Received By		Date/Time	L.	1,000		
FINAL SAMPL DISPOSITION		Metho	d (e.g., Return t	o customer, pe	r lab procedu	re, used in proc	ess)	Disposed By		ANALYSIS ANALYSI ANALYS	Date/Time		

PNNL J1E070107 W05172
Aue 06.18.07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C.# W07-005-54

	Aue 06	18-	07	-										Page	<u>1</u> of	1
Collector	Fluor Ha R. T. SIC				***************************************	HW		Contact/Red			·	Telephone No. 509-376-5056	MSI		AX	
SAF No. W07-005								Sampling O Hanford S				Purchase Order/				
Project Title RCRA, MAX	V 2007			***************************************					vF - N-	106	8	Ice Chest No.	n 137	Temp.		
Shinned To (L	ah)	T D: 11	wyzasiacne		****************			Method of S	Shipment			Bill of Lading/A	r Bill No.			
Severn Trent Protocol RCRA	t Incorporate	d. Kichi	land_					Govt. Vel		rity: 45 Days		Offsite Property	No.			
POSSIBLE SA ** ** Contains releasable per DO	s Radioactive	Material :	at con		t are no	t regulat	ed for transp	ortation per 49	CFR but are not	of 14 days.	WSCF: Batch all sample	Hold Time s submitted under A, G, I, S into one SDG, daily closure	, and W 07 SAFs in	ivity Exempti nto one SDG, n		
Sample No	o. Lab	ID	*	Date	T	ìme	No/Type	Container			Sample Analysi	s			Preservativ	e
B1N4K5			w	5-4-03	08	358	1x20-ml	. P	Activity Scan				None			
B1N4K5			W	distant		ĺ	3x1000-	mL G/P	TC99_SEP_LSC:	Tc-99 (1)			HCl to pH <2			
B1N4K5			W				1x500-m	ıL G/P	UTOT_KPA: Uran				HNO3 to pH <2	<u> </u>		
B1N4K5			W	+		2'	1x1000-	mL P	906.0_H3_LSC: T	ritium (1)			None			
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					4_											
	<u> </u>										<u> </u>			AU		
Relinquished B	ickle /	Print		Sign		Î.	AY 0	Time 1410 4 2007 Time	Received By ER'C Darly Received By	Print En /	Sign	Date/Time Date/Time	SE = SO = SI. =	Soil Sediment Solid Sludge	DI. = T = WI =	= Drum Solid = Drum Liqui = Tissue = Wine
Relinquished B	у						Date	Time	Received By	***************************************		Date/Time	O =	: Water : Oil : Aiτ	V =	= Limid = Vegetation = Other
Relinquished B	у					****	Date	/Time	Received By			Date/Time				
FINAL SAN DISPOSIT	1	isposal M	lethod	(e.g., Return	o custo	omer, per	lab procedu	re, used in proc	ess)		Disposed By	ANTONIO ANTONI		Date/T	'ime	

PNNL J1E070107 W05172
Due 06.1807

DISPOSITION

C.O.C.# W07 005 55

	W05/7	2			1	CHAI	N OF (CUSTODY	SAMPLE	ANALYSI	S REQUEST		**	0/-003-	22
100	e 06.186	7											Page	<u>1</u> of <u>1</u>	
Collector	Pivor Harion R. T. SICKLE	d .	- Section - Sect				Contact/Re				Telephone No. 509-376-5056	MS	IN FAX		
AF No.							Sampling O)rigin			Purchase Order/	Charge Code		12 5.50	
W07-005 roject Title RCRA, MAY	2007						Hanford S	5 F - N - 5	~ 6 G		Ice Chest No.	L 137	Temp.		
hinned To (La	h)	New York Control of the Control of t				ZZISKOW WITH THE RESIDENCE OF THE RESIDE	[Method of S	Shipment	* & &	***************************************	Bill of Lading/A	r Bill No.		·	
rotocol	Incorporated, Ric	hland	Naskananner Aragalikalari erunannan opp		Novel statement		Govt. Vel		rity: 45 Days		Offsite Property	No.			
** ** Contains	MPLE HAZARD Radioactive Materia E Order 5400.5 (1990	l at con	centrations that	t are no	t regulat	ed for transp	ortation per 49		SPECIAL INST All Labs except V of 14 days.	VSCF: Batch all sample	Hold Time es submitted under A, G, I, S I into one SDG, daily closure	s, and W 07 SAFs	ctivity Exemptior into one SDG, not (
Sample No.	. Lab ID	*	Date	T	ime	No/Type	e Container			Sample Analys	is		Pı	reservative	
B1N4K6		W	5-4-02	04	358	1x20-mL	_ P	Activity Scan				None			
B1N4K6		W	ì	T	1	3x1000-	mL G/P	TC99_SEP_LSC:	Tc-99 (1)			HCl to pH <2			
B1N4K6		W				1x500-m	ıL G/P	UTOT_KPA: Uran	ium (1)			HNO3 to pH •	<2		
B1N4K6		W	+			1x1000-	mL P	906.0_H3_LSC: T	ritium (1)			None			
					- Iwa					J.)EPK				
		1													
					_										
		1													
		,													
Relinquished By	Hanford Print		Sign			Date	Time /4/0	Received By	Print	Sign	Date/Time	410	Mati	ix *	
R.T.S	ICKLE //				M/	AY 0 4	2007	Ene Dar	My Exic	Deply	MAY n 4	nn7 s		DS = Dn	ım Solid
Relinquished By						Date	/Time	Received By	0	,	Date/Time		= Sediment = Solid	T = Tis	
								- 15			D.M. (Time	SI. W	= Sludge = Water	WI = Wi I. = Lia	
Relinquished By	,					Date.	/Time	Received By			Date/Time	O A	= Oil = Air	V = Ve $X = Oth$	
Relinquished By	,		11100			Date	e/Time	Received By		Marine	Date/Time		***************************************		
FINAL SAM	IPLE Disposal	Method	i (e.g., Return 1	to custo	mer, per	lab procedu	re, used in proc	cess)		Disposed By			Date/Tim	e	

PNNL	N 5	-4-	40	7E076	CHAIN OF	CUSTODY/ 5/72	SAMPLE ANALYS	IS REQUEST		NO.C.# W07-005-132 Page 1 of 1		
Collector B	LRAFOX		Fluor H		Contact/Re	equester		Telephone No. 509-376-5056	MSIN	FAX		
SAF No. W07-005			A. I. SI	CKLE	Sampling (Origin			Purchase Order/Charge Code			
roject Title RCRA, MAY 20	007					#NF-N-506 8 Ice Chest				No. SIUL 134 Temp.		
hinned To (Lab) Severn Trent Inc		nland	en mont out with a company of the co		Method of Govt. Ve	Shipment		Bill of Lading/Ai				
rotocol RCRA		of the second		Microbiologica (Carlotting Carlotting Carlot			ority: 45 Days	Offsite Property	No.			
** ** Contains Rac eleasable per DOE Or	dioactive Materia	at cor	centrations that	are not regulate	ed for transportation per 49	CFR but are not	SPECIAL INSTRUCTIONS All Labs except WSCF: Batch all samp of 14 days. WSCF: Batch all GW samples submitte		, and W 07 SAFs into o	v Exemption: Yes ✓ No ☐ one SDG, not to exceed SDG closure		
Sample No.	Lab ID	*	Date	Time	No/Type Container		Sample Analy	sis		Preservative		
B1N4R9		W	5-4-02	0956	1x20-mL P	Activity Scan			None			
B1N4R9		W	1		3x1000-mL G/P	TC99_SEP_LSC:	Tc-99 (1)		HCl to pH <2			
												
B1N4R9		W			1x500-mL G/P	UTOT_KPA: Urar	nium (1)		HNO3 to pH <2	***************************************		
		W	4		1x500-mL G/P 1x1000-mL P	UTOT_KPA: Urar 906.0_H3_LSC: T						
									HNO3 to pH <2			
			*				Fritium (1)		HNO3 to pH <2			
							Fritium (1)		HNO3 to pH <2			
							Fritium (1)		HNO3 to pH <2			
							Fritium (1)		HNO3 to pH <2			
B1N4R9 B1N4R9							Fritium (1)		HNO3 to pH <2			

S = Soil SE = Sediment SO = Solid SI = Sludge W = Water Drum Solid DL = Drum Liqui Relinquished By Date/Time Date/Time Received By = Tissne WI = Wine
I. = Liquid
V = Vegetation
X = Other O = Oil A = Air Relinquished By Date/Time Date/Time Received By Date/Time Relinquished By Date/Time Received By FINAL SAMPLE Disposed By Date/Time Disposal Method (e.g., Return to customer, per lab procedure, used in process) DISPOSITION

PNNL JAE	070107
	06.18-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C.# W07-005-140

,	Aue 1	16-18-0	7											Page	<u>1</u> of	1
Collector	PRIO	FHANTORG SICKLE						Contact/Red				Telephone No. 509-376-5056	MSI	L		
SAF No. W07-005								Sampling O Hanford S	rigin			Purchase Order/	Charge Code			
Proiect Title	е					 			NF -N-3	70 6 B		Ice Chest Non	, ,?)	Temp.		
RCRA, M Shinned To			GANGE PROFIT					Method of S		<u> </u>		Bill of Lading/Ai	r Bill No.			
Severn Tr Protocol	ent Incorn	orated, Rich	land		MANAGORIO SONO	SALE SALES S		Govt. Vel				Offsite Property	No			
RCRA									Pric	rity: 45 Days						N
POSSIBLE ** ** Conta releasable per I	ains Radioa	ctive Material	at con	centrations that	are no	ot regulat	ed for transp	ortation per 49	CFR but are not	of 14 days.	RUCTIONS Hold SCF: Batch all samples subn GW samples submitted into o		, and W 07 SAFs i	tivity Exemption one SDG, not		
Sample	No.	Lab ID	*	Date	Т	ime	No/Type	Container			Sample Analysis			I	reservative	
B1N4T4			W	5-4-07	10	76	1x20-ml	. P	Activity Scan				None			
B1N4T4			W				3x1000-		TC99_SEP_LSC:				HCl to pH <2			
B1N4T4			W				1x500-n		UTOT_KPA: Uran				HNO3 to pH <	2		
B1N4T4			W		<u> </u>	<u> </u>	1x1000-		906.0_H3_LSC: T			1	None			
B1N541			W	*	-	<u> </u>	1x1000-		9310_ALPHABET	A_GPC: Alpha +	Beta (2) フルFA		HNO3 to pH <	2		
B1N541_			₩			-	_1x20-ml	Р	Activity Scan	4-	10-01 DF		None			
										-						
											JWEP	9				
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L			<u></u>	L	12		<u> </u>		<u> </u>							*****
Relinquished	i By or Hanfon	i Print	_	ngn					Received By	Print	Sign	Date/Time		Ma	trix *	
	SICKLE		4					4 2007 Time	ERIC Dany Received By	En Da	Mry	MAY 0 4 21 Date/Time	SE = SO = SI. = W	= Soil = Sediment = Solid = Sludge = Water	DI, = T = WI = I, =	Wine Liquid
Relinquished	d By						Date	Time	Received By			Date/Time		= Oil = Air		Vegetation Other
Relinquished	d By						Date	Time	Received By			Date/Time				
FINAL S DISPOS		Disposal 1	Method	l (e.g., Return t	o custo	orner, per	lab procedu	re, used in proc	ess)		Disposed By	<u>annon</u>		Date/Tir	ne	

PNNIJ7E070107
W05175
Due 06.18.07

C.O.C.# W07-005-144

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST Page 1 of 1 Contact/Requester Telephone No. MSIN FAX Collector Fluor Hanford RISICIOF Dot Stewart 509-376-5056 Purchase Order/Charge Code SAF No. Sampling Origin W07-005 Hanford Site Ice Chest No. Gunt 131 Project Title HNF-N-50 6 RCRA, MAY 2007 Shinned To (Lab) Method of Shipment Bill of Lading/Air Bill No. Severn Trent Incorporated, Richland Govt. Vehicle Offsite Property No. Protocol Priority: 45 Days RCRA SPECIAL INSTRUCTIONS Total Activity Exemption: Yes V No POSSIBLE SAMPLE HAZARDS/REMARKS Hold Time ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not All Labs except WSCF: Batch all samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure releasable per DOE Order 5400.5 (1990/1993) WSCF: Batch all GW samples submitted into one SDG, daily closure. No/Type Container Sample No. Lab ID Date Time Sample Analysis Preservative B1N4T6 W 1x20-mL P Activity Scan None 1220 W 1x4000-mL G/P GAMMALL GS: List-1 (9) HNO3 to pH <2 **B1N4T6 B1N4T6** W 1x500-mL G/P UTOT KPA: Uranium (1) HNO3 to pH <2 TC99 ETVDSK LSC: Tc-99 (1) HCl to pH <2 1x500-mL P **B1N4T6** W B1N4T6 W 1x1000-mL P 906.0 H3 LSC: Tritium (1) None TWEPU Date/Time ///// Received By Date/Time/4/0 Print Sign Matrix * Relinquished By Fluor Hanford = Soil DS = Drum Solid = Sediment DL. = Drim Liqui Relinquished By Date/Time Received By SO = Solid = Tissue SI. = Sludge WI = Wine Water = Liouid Date/Time 0 = Oil = Vegetation Relinquished By Date/Time Received By = Air = Other Received By Date/Time Date/Time Relinquished By

FINAL SAMPLE DISPOSITION

Disposal Method (e.g., Return to customer, per lab procedure, used in process)

Disposed By

Date/Time



Date/Tir	ne Received: 5/4/07 /40	
Client:_	PGW SDG#: 405172	NA[] SAF#: WOT-005 NA[]
Work O	rder Number: 77F070107 Chair	n of Custody # W07-005-46, 54, 55,
		ill#
1.	Custody Seals on shipping container intact?	NA[] Yes[4 No[]
2.	Custody Seals dated and signed?	NA[] Yes[] No[]
3.	Chain of Custody record present?	Yes [] No []
4.	Cooler temperature:NA [J 5.Vermic	culite/packing materials is NA [Wet [] Dry []
6.	Number of samples in shipping container:	6
.7.	Sample holding times exceeded?	NA[Yes[] No[]
8.	Samples have:tapecustody seals	hazard labels appropriate samples labels
9.	Samples are:broken	leakinghave air bubbles (Only for samples requiring head space)
10.	Sample pH taken? NA[] pH<2[Y	pH>2[] pH>9[]
11.	Sample Location, Sample Collector Listed? * *For documentation only. No corrective action ne	Yes [1] No []
12.	Were any anomalies identified in sample receipt?	Yes [] No []
13.	Description of anomalies (include sample numbers	3):
Sample (Custodian: Fr Darby	Date: 5/4/07 14/0
Clie	nt Sample ID Analysis Requested	Condition Comments/Action
Client Inf	formed onby	Person contacted
[] No a	action necessary; process as is.	
Project M	fanager	Date
1 5 022 (M/03 Day 5	

PNNL					CHAI	N OF	CUSTODY	/SAMPLE A	NALYSIS I	REQUEST	i	.c.# S07-003-331
			15	TEDT	0109	4	005172	Due 06 -1	18-07			Page <u>1</u> of <u>1</u>
Collector	Fluor Hanford					Contact/Re	equester			Telephone No.	MSIN	FAX
SAF No.	EW HALL					Dot Stew Sampling (Origin			509-376-5056 Purchase Order		
S07-003 Project Title						Hanford 11	Site NF -N - SC	VG		Ice Chest No. S	. T	emp.
SURV, MARO Shinned To (La)						Method of			**************************************	Bill of Lading/A		All and the second seco
Severn Trent I		hland				Govt. Ve	hicle			Offsite Property		
SURV							Pr	iority: 45 Days				
POSSIBLE SAN ** ** Contains I releasable per DOE	Radioactive Materia	al at con	centrations that	are not regula	ted for transp	ortation per 49	CFR but are not	closure of 14 days.	CTIONS Hold: Batch all PNNL sampl L GW samples submitte		., G, I, S, and W 07 SAFs	Exemption: Yes Mo linto one SDG, not to exceed SDG
Sample No.	Lab ID	*	Date	Time	No/Type	Container			Sample Analysis			Preservative
B1MF90		W	5/4/7	1207	1x20-mL	- P	Activity Scan				None	<u> </u>
B1MF90		W	4	4	3x1000-	mL P	TRITIUM_ELEC	T_LSC_LL: H-3 (1)			None	
		-										Wallet - Carlotte - Ca
		-			ļ			WATER TO THE TOTAL THE TOTAL TO AL TO THE TO	JWEP	/		
		-	<u> </u>									
**************************************		-		<u> </u>		····						
**************************************												432
		1										
			WIIIV									

		-										
				<u> </u>	<u> </u>							
	r Hanford	El El	Sign	X 0 4 2	2007 Date/	Time / GC	Received By	Print Grafe	Sign MAY 0 4 2	Date/Time	/ <i>See</i> = So	Matrix * IDS = Drum Se
Relinquished By					Date/	Time	Received By	,		Date/Time	SE = Se SO = So SI = Sh W = W	$\begin{array}{lll} \text{diment} & \text{DL} &=& \text{Drum Li} \\ \text{lid} & \text{T} &=& \text{Tissue} \\ \text{dge} & \text{WI} &=& \text{Wine} \end{array}$
Relinquished By				7,000	Date/	Time	Received By			Date/Time	O = Oi A = Ai	V = Vegetati
Relinquished By			***************************************	-	Date/	Time	Received By			Date/Time		
FINAL SAM	DI E Dienosal	Method	l (e.g., Return to	customer, per	lah procedur	e. used in proc	l ess)	Dis	posed By			Date/Time

DISPOSITION

PNNL				!	CHAIN OI	F CUSTODY	Y/SAMPLE ANA	LYSIS REQ	UEST	C.O.C. #	S07-003-339		
				JTTE	070109	W0517	2 Aue ole	18-07		Pa	ge <u>1</u> of <u>1</u>		
Collegeor Hanfor	3					/Requester		Telepl	hone No.	MSIN	FAX		
SAF No.					Samplin	itewart 1g Origin			509-376-5056 Purchase Order/Charge Code				
S07-003 Project Title						ord Site HNF -N -SC	166	Ice Ch	Ice Chest No. Skins Temp.				
SURV, MARCH						of Shipment			Bill of Lading/Air Bill No.				
Severn Trent Inc		hland				Vehicle							
Protocol SURV						F	Priority: 45 Days	Offsite	e Property No	•			
POSSIBLE SAME ** ** Contains Ra- releasable per DOE O	dioactive Materia	al at cor	ncentrations that	t are not regulat	ed for transportation pe	er 49 CFR but are not	SPECIAL INSTRUCTIO All Labs except WSCF: Bate closure of 14 days. WSCF: Batch all PNNL GW	ch all PNNL samples submi	itted under A, G,	I, S, and W 07 SAFs into	mption: Yes V No one SDG, not to exceed SDG		
Sample No.	Lab ID	*	Date	Time	No/Type Containe	er	Samp	ole Analysis			Preservative		
B1MDN5		W	5/4/7	1036	1x20-mL P	Activity Scan			No	ne			
B1MDN5		W	1	1	1x1000-mL P	9310_ALPHAE	ETA_GPC: Alpha + Beta (2)	HN	NO3 to pH <2			
B1MDN5		W	4	V	1x500-mL G/P	UTOT_KPA: U	ranium (1)		HV	NO3 to pH <2			
							JU	UER5					
		<u> </u>											
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		-								WHEAT			
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Relinquished By				MAY	0 4 Departme 13	Received By	Print S Darly & Dab	MAY 0 4 20	Doto/Time (>	S = Soil	Matrix * DS = Drum Solid		
Relinquished By		e ·	000		Date/Time	Received By			Date/Time	SE = Sedimen SO = Solid SL = Sludge W = Water			
Relinquished By					Date/Time	Received By			Date/Time	O = Oil A = Air	V = Vegetation X = Other		
Relinquished By				74 M 0 7 7 1	Date/Time	Received By			Date/Time				
7777.4 X C.1							Dimensi	l D.,			oto Mino		

DISPOSITION

FINAL SAMPLE Disposal Method (e.g., Return to customer, per lab procedure, used in process)

Disposed By

Date/Time

PNNL					✓ TT A T		CTICEODY		ICIC DE OTERCE		C.O.C.#	507-00	3_3/5
								SAMPLE ANALY	_		K	7-00	3-343
				TTEO	70109	$rac{3}{\mu}$	105172	Due 06.18.	07		Page	<u>1</u> of	1
Collector Fluor H	ianford					Contact/Re			Telephone No. 509-376-5056	MS	N F	AX	
SAF No. F. W. H.	ALL	***************************************		***************************************		Sampling C)rigin	AND DESCRIPTION OF THE PROPERTY OF THE PROPERT	Purchase Order				
S07-003 Project Title			W-11.			Hanford	Site F-N-506	- 6	Ice Chest No.		Temp.		
SURV. MARCH 2	.007					Method of		• •	Bill of Lading/A				
Severn Trent Incor	norated Ric	hland				Govt. Ve							
Protocol SURV							Pric	ority: 45 Days	Offsite Propert	v No.			
POSSIBLE SAMPL ** ** Contains Radio releasable per DOE Orde	oactive Materia	l at con		are not regulat	ted for transpo	ortation per 49	CFR but are not	SPECIAL INSTRUCTIONS All Labs except WSCF: Batch all I closure of 14 days. WSCF: Batch all PNNL GW samp	•	A, G, I, S, and W 07	ctivity Exempt SAFs into one		
Sample No.	Lab ID	*	Date	Time	No/Type	Container		Sample Ar	nalysis	***************************************	*/************************************	Preservativ	ve
B1MDN7	TANK	W	5/4/7	1123	1x20-mL		Activity Scan			None			
B1MDN7		W	1	1	1x1000-r	nL P	9310_ALPHABET	A_GPC: Alpha + Beta (2)		HNO3 to pH <	:2		
B1MDN7		W	V	V	1x500-m	L G/P	UTOT_KPA: Urar	ium (1)		HNO3 to pH <	:2		
		11							WEPG				
		1-1		ļ									
		1			<u> </u>				www				
		1		 									
		-						WARRIER TO THE					-
				1							V.1124/11.		
								WARRIED CONTRACTOR OF THE STATE					······································
									Walter Manager Control of the Contro				
			1911										3.10W
					AN IN T		<i></i>			-/			
Relinquished By	Print Hanford	SE.		Y 9 4 2	Date/	Time / 70	Received By	Print Sign	AY 0 4 2007 Pate/Time	(590) s	M = Soil	latrix *	= Drum Solic
Relinquished By		7			Date/	Гіте	Received By		Date/Time	SE SO	= Sediment = Solid = Sludge = Water	DI. : T : WI :	= Drum Lian = Tissue = Wine = Liauid
Relinquished By					Date/	Γime	Received By		Date/Time		= Oil = Air		VegetationOther
Relinquished By					Date/	Гіте	Received By	an ann an Annaile an	Date/Time	:			
FINAL SAMPLE DISPOSITION	Disposal	Method	(e.g., Return to	o customer, per	lab procedure	e, used in proc	ess)	Disposed By	Miles		Date/1	lime .	

PNNL	Andrew State	Accessor			CHAI	NOF	CUSTODY	SAMPLE ANALY	YSIS REQUEST		C.O.C.#	S07-00	3-346
				JIEC	7010	9	W05/72	Due Ole 1	8.07		Page	<u>1</u> of	1
Collector Fluor Ha						Contact/Re	quester		Telephone No.	MS	IN I	FAX	
EAF No.						Dot Stew Sampling (509-376-5056 Purchase Order				******
S07-003 Project Title						Hanford			Ice Chest No		Temp.		
SURV, MARCH	2007						F-H-50	6-6	Ice Chest No. S		t citip.		******
Shinned To (Lab) Severn Trent Inco	ornorated Ric	hland				Method of Govt. Ve			Bill of Lading/A	ir Bill No.			
rotocol SURV		Adal (Adala) Salah	AND THE RESIDENCE OF THE PROPERTY OF THE PROPE		TO STATE OF THE PROPERTY OF TH			ority: 45 Days	Offsite Property	No.			
** ** Contains Rad eleasable per DOE Or	ioactive Materia	l at con	centrations that	are not regula	ted for transp	ortation per 49	CFR but are not	SPECIAL INSTRUCTIONS All Labs except WSCF: Batch all closure of 14 days. WSCF: Batch all PNNL GW sam	-	, G, I, S, and W 07	ctivity Exemp SAFs into one	tion: Yes	✓ No Lexceed SDG
Sample No.	Lab ID	*	Date	Time	No/Type	: Container		Sample A	nalysis			Preservati	ve
B1MDN8		W	5/4/7	1123	1x20-ml		Activity Scan			None			
B1MDN8		W		١	1x1000-	mL P	9310_ALPHABE	TA_GPC: Alpha + Beta (2)	, , , , , , , , , , , , , , , , , , , ,	HNO3 to pH <	-2		
B1MDN8		W	Ą	V	1x500-n	nL G/P	UTOT_KPA: Ura	nium (1)		HNO3 to pH <	:2	···.	
								TU)EP8				
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		-											·····
NAME OF THE OWNER													
								Manager P					
		-											
	<u> </u>		<u> </u>		<u> </u>	***************************************	<u> </u>			<u> </u>			
Relinquished By	Print Planford C	E.	Joign Joign John John John John John John John John	MAY 0 4	2007 ^{te}	Time 34	Received By Elic A	Print Sign	Y 0 4 2007	(30p	= Soil		= Dnim Sol
Relinquished By	· ·				Date	/Time	Received By		Date/Time	SE SO SL W	= Sediment = Solid = Sludge = Water	T WI	Drim LicTissueWineLiquid
Relinquished By					Date	/Time	Received By		Date/Time		= Water = Oil = Air	v	LiquidVegetationOther
Relinquished By					Date	/Time	Received By		Date/Time				

FINAL SAMPLE DISPOSITION

Disposal Method (e.g., Return to customer, per lab procedure, used in process)

Disposed By

Date/Time



Date/Ti	ime Received: <u>6</u>	14/07			
Client:_	PGW	SDG #:_W0:	5/172_NA[]	SAF #: <u>\$</u>	7-003_NA[]
Work C	Order Number: <u>77</u>	E070109	Chain of Custo	ody# <u>507-0</u>	03-331,339,345,39
Shippin	g Container ID:	· · · · · · · · · · · · · · · · · · ·	Air Bill#		·
1.	Custody Seals on	shipping container intac	ct?	NA[]	Yes [No []
2.	Custody Seals dat	ed and signed?		NA[]	Yes [1] No []
3.	Chain of Custody	record present?		•	Yes [1] No []
4.	Cooler temperatur	e:NA []	5.Vermiculite/pac	king materials	is NA [] Wet [] Dry []
6.	Number of sample	es in shipping container	·		
.7.	Sample holding ti	mes exceeded?		NA [L]	Yes [] No []
8.	Samples have:tapecustody sea	ls .	V	_hazard labels _appropriate s	
9.	Samples are:in good conbroken	dition	(Only	_leaking _have air bubb r for samples r	oles requiring head space)
10.	Sample pH taken?	NA[] pH	H<2 [c] pH>2 [c	pH>9[]	
11.		Sample Collector Liste on only. No corrective			Yes []-No []
12.	Were any anomali	es identified in sample	receipt?		Yes [] No [-]
13.	Description of and	omalies (include sample	numbers):		
Sample	Custodian:	En Darby	Date:	5/4/07	1300
Cli	ent Sample ID	Analysis Requested	Cond	ition	Comments/Action
					:
Client In	nformed on	by	Person	ontacted	•
[] No	action necessary; pro	cess as is.			
Project N	Manager		Date_		
	0.000 70				

PNNL J7 E070112	
W05/72	,

C.O.C.#

\$07.004.206

11	105/12	2	**		CHAL	NOFC	CUSTODY	/SAMPLE	ANALYSIS F	ŒQUEST		51	J / - UU4	-270
	10 A	ue	06-18-6	07								Page	<u>1</u> of	1
Collector M. HALL						Contact/Re				Telephone No. 509-376-5056	MSII	N FA	X	~
SAF No. S07-004			MINTE			Sampling O	Prigin			Purchase Order/	Charge Code			
Project Title							tHF - M -	S(x(a		Ice Chest No. S	Cinc	Temp.	***************************************	
SURV, APRIL 20 Shinned To (Lab)	.007	sana pangangan pangan				Method of S				Bill of Lading/Ai				
Severn Trent Inc. Protocol	corporated. Ric	hland			netering and consequences of the	Govt. Vel				Offsite Property	No.			-
SURV			N. 1. D. 1. C.				Pı	riority: 45 Days	OLICETONIC XX X				77 60	77
POSSIBLE SAMP ** ** Contains Rac releasable per DOE Or	dioactive Materia	l at cor	ncentrations that	are not regulat	ted for transpo	ortation per 49	CFR but are not	closure of 14 days.	SCF: Batch all PNNL sample	Ť	G, I, S, and W 07	ivity Exemptio SAFs into one SI		
Sample No.	Lab ID	*	Date	Time	No/Type	Container			Sample Analysis			I	reservative	
B1MRM5		W	5/4/7	O920	1x20-mL	Р	Activity Scan				None			
B1MRM5		W	١		1x1000-r	nL P	906.0_H3_LSC:				None			
B1MRM5		W	V	V	2x4000-r	nL G/P	I129LL_SEP_LE	EPS_GS_LL: I-129	(1)		None			
									JWEC)K				
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		1									٠,			
		1												
<u> </u>		-	<u>.L</u>								-			···········
Relinquished By Fuor Flant F. M. HALL	Orc Print		Sign	0 4 20	O7 Date/	Time TC	Received By	Print	Sign MAY 0 1	2007 ^{ate/Time}			trix *	
Relinquished By	2200	4	ner_		Date/		Received By	grely A	Jarry	Date/Time	S = SE =	= Soil = Sediment		Drum Solid Drum Liaui
Remiquished by					Dator		1,000,000		U			= Solid = Sludge		Tissue Wine
Relinquished By					Date/	Time	Received By			Date/Time	W =	Water Oil Air	I. = V =	Liquid Vegetation Other
Relinquished By					Date/	Time	Received By			Date/Time				
FINAL SAMPI DISPOSITION	, .	Method	d (e.g., Return t	o customer, per	r lab procedure	e, used in proc	eess)		Disposed By			Date/Tir	me	



Date/Ti	me Received: <u>5</u>	14/07-1300		
Client:_	PGW	SDG #: <u>W05</u>	//2_NA[] SAF#:	SO7-004 NA[]
Work O	rder Number: 🗸	1E070112	Chain of Custody # 50	7-004-294
Shippin	g Container ID:		Air Bill #	
1.	Custody Seals on	shipping container intact?	NA	[·] Yes [] No []
2.	Custody Seals da	ted and signed?	NA	[] Yes [No []
3.	Chain of Custody	record present?		Yes [] No []
4.	Cooler temperatu	re:NA [4] 5.	Vermiculite/packing mate	rials is NA [] Wet [] Dry []
6.	Number of sampl	es in shipping container:		
.7.	Sample holding t	imes exceeded?	NA	[] Yes [] No []
8.	Samples have:tapecustody sea	ıls	hazard la appropria	bels te samples labels
9.	Samples are:in good corbroken	ndition	leaking have air b (Only for sampl	oubbles les requiring head space)
10.	Sample pH taken	? NA[] pH<	2[] pH>2[.] pH>9	[]
11.		Sample Collector Listed? on only. No corrective act		Yes [-] No []
12.	Were any anomal	ies identified in sample rec	ceipt?	Yes [] No [-]
13.	Description of an	omalies (include sample nu	ımbers):	
Sample	Custodian:	Er Darby	Date: 5/4	1107 1300
Clie	nt Sample ID	Analysis Requested	Condition	Comments/Action
		•		
Client In	formed on	by	Person contacted	
[] No a	action necessary; pro	ocess as is.		
Project M	Manager		Date	
LS-023,	9/03, Rev. 5			

PNNL J7E080312	
1200110	
Due 06.21.07	

C.O.C.#

w	05/7	2			CHAI	NOF	CUSTODY/	SAMPLE AT	NALYSIS F	REQUEST	1		U'/-U44	1-120
Due	05/7	1.07	7									Page	<u>1</u> of	1
ollector Fluor H	anford					Contact/Re				Telephone No.	MSI	N FA	АX	
AF No.	NROHEN					Dot Stew Sampling C)rigin		~ · · · · · · · · · · · · · · · · · · ·	509-376-5056 Purchase Order/	Charge Code			
I07-044 roject Title						Hanford				Ice Chest No.		Temp.		
2ZP1-LOI, MAY	2007						15-N-576 8			Ice Chest No.		I timp.	·····	
hinned To (Lab) Severn Trent Inco	ornorated, Ric	bland		NO SECURIO CONTRACTO DE CONTRAC		Method of S Govt. Ve				Bill of Lading/Ai	r Bill No.			
rotocol	•••	and the second s			Marie 100 100 100 100 100 100 100 100 100 10			rity: 45 Days		Offsite Property	No.	******		
CERCLA POSSIBLE SAMPI ** ** Contains Radi eleasable per DOE Ord	ioactive Materia	al at con		are not regulat	ed for transp	ortation per 49	CFR but are not	SPECIAL INSTRUC All Labs except WSCF: of 14 days. WSCF: Batch all GW s	Batch all samples subr		, and W 07 SAFs	tivity Exempti into one SDG, no		
Sample No.	Lab ID	*	Date	Time	No/Type	Container			Sample Analysis				Preservativ	re
B1N357		W	5-7-01	10519	1x20-mL		Activity Scan				None	I		
B1N357		W	- 	1	2x4000-	mL G/P	I129LL_SEP_LEP	S_GS_LL: I-129 (1)			None			
B1N357		W		4	1x500-m	iL P	TC99_ETVDSK_L	SC: Tc-99 (1)			HCl to pH <2			
		l		<u> </u>										
									JW	15W				
										-				
										,,,,,				
Relinquished By Han	Iford Prin	. 1	Sign		IY n 7	2007	Received By	L 55	n Sign	- EUUI	s	= Soil	atrix *	= Drum Solid
Relinquished By					Date/	Time /	Received By			Date/Time	SO SL	= Sediment = Solid = Sludge = Water	T = WI = I. =	= Drum Liau = Tissue = Wine = Liauid
Relinquished By					Date	Time	Received By			Date/Time		= Oil = Air		VegetationOther
Relinquished By					Date	Time	Received By			Date/Time				~~~
FINAL SAMPLE		Method	(e.g., Return to	customer, per	lab procedur	e, used in proc	eess)	Dis	posed By			Date/T	ime	



		07.07 1510	*		
Client:_	Pow	SDG #:_ <i>W</i> 05/	72_NA[]	SAF#: 107-0	<u> </u>
Work C	Order Number: 7	7E080312	Chain of Custody	# IO7-04	4-126
Shippin	ng Container ID:		Air Bill #	· · · · · · · · · · · · · · · · · · ·	
1.	Custody Seals on	shipping container intact?		NA[] Yes []	No []
2.	Custody Seals da	ed and signed?		NA [] Yes [/]	No []
3.	Chain of Custody	record present?		Yes []	No []
4.	Cooler temperatu	re:NA 🖍 5.Ve	ermiculite/packin	g materials is NA	Wet[]Dry[]
6.	Number of sampl	es in shipping container:		alari, empre	
.7.	Sample holding ti	mes exceeded?		NA [/ Yes []	No []
8.	Samples have:tapecustody sea	ıls .		zard labels propriate samples	labels
9.	Samples are:in good corbroken	ndition	ha	aking ve air bubbles r samples requirin	g head space)
10.	Sample pH taken	? NA[] pH<2)	/ pH>2/1	pH>9[]	
11.		Sample Collector Listed? * on only. No corrective action	on needed.	Yes	/] No[]
12.	Were any anomal	ies identified in sample rece	ipt?	Yes [] No [/
13.	Description of an	omalies (include sample nun	nbers):		
Sample	Custodian:	In G	Date: 0	5.07-07	15:10
Clie	ent Sample ID	Analysis Requested	Conditio	n Co	mments/Action
Client In	nformed on	. by	Person co	ontacted	•
	action necessary; pro	•			
			Date		
T S_023	9/03 Rev 5				

PNNL J7E	2080313 105172 2060	31.0	77	(CHAII	N OF (CUSTODY	SAMPLE ANAI	LYSIS REQUEST		C.O.C. #	S07-005-70 age 1 of 1
Collector	3 UR / K.J. X	M CK				Contact/Re			Telephone No.		MSIN	FAX
SAF No.	17. 0. 10	MIC	5			Dot Stew Sampling C			509-376-5056 Purchase Order		ada	
S07-005						Hanford						
Project Title SURV, MAY 20						Inaho	nk'. Ha)F.	-N-506-6	Ice Chest No.	SKins	Temr).
Shinned To (Lah)	V/					Method of	Shipment	7 200 P	Bill of Lading/A			
Severn Trent Inc	ornorated. Ric	hland				Govt. Ve						
Protocol SURV							Pri	ority: 45 Days	Offsite Property	No.		
** ** Contains Rac releasable per DOE Or	lioactive Materia	l at co	ncentrations that	are not regulate	ed for transpo	rtation per 49	CFR but are not	of 14 days.	S Hold Time all samples submitted under A, G, I, submitted into one SDG, daily closur	S, and W 07		emption: Yes V No L DG, not to exceed SDG closure
Sample No.	Lab ID	*	Date	Time	No/Type	Container		Sample	e Analysis			Preservative
B1N3Y1	1	W	5/7/07	0936	1x20-mL	Р	Activity Scan			None		
B1N3Y1		W	177		1x1000-n	nL P	906.0_H3_LSC:	Tritium (1)		None		-
B1N3Y1		W			2x4000-n	nL G/P	I129LL_SEP_LE	PS_GS_LL: I-129 (1)	(None		
B1N3Y1		W		V	1x500-m	L G/P	UTOT_KPA: Ura	nium (1)		HNO3 to	pH <2	
									JWH50			A
								AND ALCOHOLOGY CO.				
		1			$k_{\alpha}W$					<u> </u>		
	+	eq		$\frac{1}{1}$	\mathbb{D}^{0}	<u>~</u>	<u> </u>			 		
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Relinquished By Relinquished By	Print		Sign	MAY	Date/1 0 7 20 Date/1	07	Received By Received By	Print Sm Uh Sig	n MAY 0 7 2007 Date/Time		S = Soil SE = Sedime SO = Solid SL = Sludge	Matrix * DS = Drum So nt DL = Drum Lic T = Tissue WI = Wine
Relinquished By			and the same of th		Date/	Fime .	Received By		Date/Time		W = Water O = Oil A = Air	L = Liquid V = Vegetatio X = Other
Relinquished By					Date/	Time	Received By		Date/Time			

FINAL SAMPLE Disposal Me

Disposal Method (e.g., Return to customer, per lab procedure, used in process)

Disposed By

Date/Time



Date/Ti	ime Received:	5-07-01 75:10			
Client:_	Pow	SDG #:_W05	5/72 NA[]	SAF#:_	07-005 NA[]
		1E080313			
Shippin	ng Container ID:		Air Bill #		****
1.	Custody Seals on	shipping container intact?		NA[]	Yes [] No []
2.	Custody Seals da	ted and signed?		NA[]	Yes [/] No []
3.	Chain of Custody	record present?		•	Yes [/ No[]
4.	Cooler temperatu	re:NA[] 5.	Vermiculite/pac	king material	s is NA [] Wet [] Dry []
6.		es in shipping container:_			
.7.	Sample holding t		,		Yes [] No []
8.	Samples have:tapecustody sea	uls .	_/	_hazard label _appropriate	s samples labels
9.	Samples are:in good conbroken	ndition	(Only	_leaking _have air bub / for samples	bles requiring head space)
10.	Sample pH taken	? NA[] pH<	2 [/] pH>2 [/] pH>9[]	
11.	•	Sample Collector Listed? on only. No corrective ac			Yes [] No []
12.	Were any anomal	ies identified in sample re	ceipt?		Yes [] No/]
13.	Description of an	omalies (include sample n	umbers):		
	Λ	0			
Sample	Custodian:	Sm:14	Date:_	05.07	.07 1570
Cli	ent Sample ID	Analysis Requested	Cond	ition	Comments/Action
Client Ir	nformed on	by	Person	n contacted	•
[] No	action necessary; pro	ocess as is.			
Project N	Manager		Date_		
LS-023	9/03. Rev. 5				

Sample Preparation/Analysis 6/13/2007 11:41:36 AM Balance Id:1120482733 384868. Pacific Northwest National Laboratory . AZ Gross Alpha PrpRC5014 Pipet #: 235 Pacific Northwest National Lab S7 Gross Alpha by GPC using Am-241 curve Sep1 DT/Tm Tech: 5I CLIENT: HANFORD AnalyDueDate: 06/18/2007 PM. Quote: SA . 57671 Batch: 7129617 WATER pCi/L Sep2 DT/Tm Tech: SEQ Batch, Test: None Prep Tech: ,BockJ/APA Count On I Off CR Analyst Comments: QC Tracer Dish Ppt or Count Detector Work Order, Lot, Total Initial Aliquot Geometry Time Min ld (24hr) Circle Init/Date Prep Date Size Sample DateTime Amt/Unit Amt/Unit .50 10D 1 JWA58-1-AC 199.50q,in 2021 53.1 J7E040306-1-SAMP Beta: 1.92E-03 uCi/Sa AmtRec: 20ML,2XLP,2X4LP Alpha: -2.37E-04 uCi/Sa 05/03/2007 08:46 #Containers: 5 2 JWEPQ-1-AC 111.30g,in 100 340 10 0 J7E070107-5-SAMP Beta: -1.22E-04 uCi/Sa #Containers: 6 Scr: Alpha: 2.43E-04 uCi/Sa AmtRec: 20ML.500ML.4XLP 05/04/2007 10:36 3 JWEP5-1-AA 200.70q,in 10 A 202 J7E070109-2-SAMP Scr: Alpha: 3.90E-07 uCi/Sa Beta: 1.22E-04 uCi/Sa 05/04/2007 10:36 AmtRec: 20ML,500MLP,LP #Containers: 3 4 JWEP5-1-AF-X 201.80g,in 54.0 100 J7E070109-2-DUP 202 Beta: 1.22E-04 uCi/Sa Scr: Alpha: 3.90E-07 uCi/Sa 05/04/2007 10:36 AmtRec: 20ML,500MLP,LP #Containers: 3 5 JWEP6-1-AA 200.60q,in 54.7 "OF J7E070109-3-SAMP Scr: Alpha: 1.98E-04 uCi/Sa Beta: 5.67E-05 uCi/Sa 05/04/2007 11:23 AmtRec: 20ML,500MLP,LP #Containers: 3 6 JWEP8-1-AA 199.40a.in 10 M J7F070109-4-SAMP Alpha: 1.02E 05 uCi/Sa Beta: 1.70E-04 uCi/Sa Scr: AmtRec: 20ML,500MLP,LP #Containers: 3 05/04/2007 11:23 7 JWFA8-1-AA 198.80q,in 100 J7E070107-7-SAMP Scr: Alpha: -6.48E-05 uCi/Sa Beta: 8.13E-05 uCi/Sa 05/04/2007 12:20 AmtRec: LP #Containers: 1 WO Cnt: 7 ISV - Insufficient Volume for Analysis Key, In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 1 STL Richland Prep_SamplePrep v4.8.26 pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added Richland Wa.

			Jann	hie Lieh	ai aliOii/ <i>i</i>	Analysis		Balanc	e Id:1120482733	
			AZ Gross Alpha	-				Pi	pet #:	way a second of the second of
AnalyDueDate: 06/18/2007			S7 Gross Alpha 5l CLIENT: HAN	-	iiig Am-241	curve		Sep1 DT/Tm	Tech:	
Batch: 7129617	p	Ci/L						 Sep2 DT/Tm ⁻	Tech:	
SEQ Batch, Test: None								Prep ⁻	Tech: ,BockJ	
Work Order, Lot, Total Sample DateTime Amt/Un		nitial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometr	Count	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 JWL3P-1-AA-B	11	8.50g,in	<u> </u>		11	100	11 11		6//	The state of the s
J7E090000-617-BLK		•		15	0.6	, ,	104	0904	/19/25	
05/04/2007 10:36		AmtRec:	#Container	rs: 1			Scr:	Alpha:		Beta:
9 JWL3P-1-AC-C	20	0.80g,in	ASD4210		- Ca	4	//2	the first wards	Mir County	
J7E090000-617-LCS			05/17/07,pd 02/09/06,r		0.9		NP	**PP**********************************	A Common College Common College Colleg	
05/04/2007 10:36	**************	AmtRec:	#Container	ro: 1			Sor:	Alpha:		Beta:
Comments: WEPQ-SAMP	Commente N	o cample cent la	holed for alpha/het	a Used a bo	ttle labeled for	tech-99 IB 6/13	2/07" (\$ 0.5 cm)	- So duced	due to use:	14 5000 a
.ll Clients for Batch:										
					N= 1:		and and			
384868, Pacific Northwes	st National	Laboratory	Pacific 1	Northwest	National L	ab, SA, 576	71	an - Malanan - Malanan - Malanan Andrea		
384868, Pacific Northwes	lst:				National L	ab, SA, 576	71			
384868, Pacific Northwes WA581AC-SAMP Constituent Li ALPHA RDL:3 WL3P1AA-BLK:	ist: pCi/L	LCL:	UCL:	RPD:	National La	ab, SA, 576	71			
384868, Pacific Northwes WA581AC-SAMP Constituent Li ALPHA RDL:3 WL3P1AA-BLK: ALPHA RDL:3	ist: pCi/L pCi/L	LCL:	UCL:	RPD:	National La	ab, SA, 576	71			
384868, Pacific Northwes WA581AC-SAMP Constituent Li ALPHA RDL:3 WL3P1AA-BLK: ALPHA RDL:3 WL3P1AC-LCS: Am-241 RDL:	ist: pCi/L	LCL:	UCL:	RPD:	National L	ab, SA, 576	71			
384868, Pacific Northwes WA581AC-SAMP Constituent Li ALPHA RDL:3 WL3P1AA-BLK: ALPHA RDL:3 WL3P1AC-LCS: Am-241 RDL: WA581AC-SAMP Calc Info: Uncert Level (#s):: 2	pCi/L pCi/L pCi/L	LCL:	UCL:	RPD: RPD:	National La	odrs: B	71			
384868, Pacific Northwes WA581AC-SAMP Constituent Li ALPHA RDL:3 WL3P1AA-BLK: ALPHA RDL:3 WL3P1AC-LCS: Am-241 RDL: WA581AC-SAMP Calc Info: Uncert Level (#s).: 2 WL3P1AA-BLK: Uncert Level (#s).: 2	pCi/L pCi/L pCi/L pCi/L pCi/L	LCL: LCL: LCL:70	UCL: UCL: UCL:130	RPD: RPD: RPD:20 N Sci.	y port		71			
384868, Pacific Northwes WA581AC-SAMP Constituent Li ALPHA RDL:3 WL3P1AA-BLK: ALPHA RDL:3 WL3P1AC-LCS: Am-241 RDL: WA581AC-SAMP Calc Info: Uncert Level (#s).: 2 WL3P1AA-BLK: Uncert Level (#s).: 2	pCi/L pCi/L pCi/L pCi/L Decay t	LCL: LCL: LCL:70 co SaDt: Y	UCL: UCL: UCL:130 Blk Subt.: 1	RPD: RPD: RPD:20 N Sci. N Sci.	Not.: Y	ODRs: B	71			
384868, Pacific Northwes JWA581AC-SAMP Constituent Li ALPHA RDL:3 JWL3P1AA-BLK: ALPHA RDL:3 JWL3P1AC-LCS: Am-241 RDL: JWA581AC-SAMP Calc Info: Uncert Level (#s).: 2 JWL3P1AA-BLK: Uncert Level (#s).: 2 JWL3P1AC-LCS:	pCi/L pCi/L pCi/L pCi/L Decay t	LCL: LCL:70 to SaDt: Y	UCL: UCL: UCL:130 Blk Subt.: 1	RPD: RPD: RPD:20 N Sci. N Sci.	Not.: Y Not.: Y Not.: Y	ODRs: B ODRs: B			Date:	
384868, Pacific Northwes WA581AC-SAMP Constituent Li ALPHA RDL:3 WH3P1AA-BLK: ALPHA RDL:3 WH3P1AC-LCS: Am-241 RDL: UNCERT LEVEL (#s).: 2 WH3P1AA-BLK: Uncert Level (#s).: 2 WH3P1AC-LCS:	pCi/L pCi/L pCi/L pCi/L Decay t	LCL: LCL:70 to SaDt: Y	UCL: UCL: UCL:130 Blk Subt.: 1	RPD: RPD: RPD:20 N Sci. N Sci.	Not.: Y Not.: Y Not.: Y	ODRs: B ODRs: B			Date:	
384868, Pacific Northwest WA581AC-SAMP Constituent Lia ALPHA RDL:3 WHA581AC-BLK: ALPHA RDL:3 WHA581AC-LCS: Am-241 RDL: WA581AC-SAMP Calc Info: Uncert Level (#s).: 2 WHA581AA-BLK: Uncert Level (#s).: 2 WHA581AC-LCS:	pCi/L pCi/L pCi/L pCi/L Decay t	LCL: LCL:70 to SaDt: Y	UCL: UCL: UCL:130 Blk Subt.: 1	RPD: RPD: RPD:20 N Sci. N Sci.	Not.: Y Not.: Y Not.: Y	ODRs: B ODRs: B			Date:	
WA581AC-SAMP Constituent Lial ALPHA RDL:3 WL3P1AA-BLK: ALPHA RDL:3 WL3P1AC-LCS: Am-241 RDL: WA581AC-SAMP Calc Info: Uncert Level (#s).: 2 WL3P1AA-BLK: Uncert Level (#s).: 2 WL3P1AC-LCS: Uncert Level (#s).: 2	pCi/L pCi/L pCi/L Decay t Decay t	LCL: LCL:70 to SaDt: Y to SaDt: Y	UCL: UCL: UCL:130 Blk Subt.: 1	RPD: RPD:20 N Sci. N Sci. N Sci.	Not.: Y Not.: Y Not.: Y	ODRs: B ODRs: B ODRs: B		lume for Analysis		WO Cnt: 9

6/19/2007 3:34:21 PM

ICOC Fraction Transfer/Status Report ByDate: 6/19/2006, 6/24/2007, Batch: '7129617', User: *ALL Order By DateTimeAccepting

Q Batch Work	Ord CurStat	tus A	ccepting		Comments
7129617	MM MATERIAL CONTRACTOR CONTRACTOR CONTRACTOR				
4C	CalcC	BockJ	6/13/2007 11:3	0:24	
SC		wagarr	IsBatched	5/9/2007 4:41:37 PM	ICOC_RADCALC v4.8.26
SC		BockJ	InPrep	6/13/2007 11:30:24 AM	RICH-RC-5016 Revision 7
SC		BockJ	Prep1C	6/13/2007 11:41:41 AM	RICH-RC-5014 REVISION 7
SC		AshworthA	InPrep2	6/15/2007 4:09:03 PM	RICH-RC-5014 REVISION 7
SC		AshworthA	Prep2C	6/18/2007 3:16:18 PM	RICH-RC-5014 REVISION 7
SC		DAWKINSO	InCnt1	6/18/2007 3:32:18 PM	RICH-RD-0003 REVISION 5
SC		BlackCL	CalcC	6/19/2007 9:20:06 AM	RICH-RD-0003 REVISION 5
4 <i>C</i>		BockJ	6/13/2007 11:4	1:41	
4 <i>C</i>		AshworthA	6/15/2007 4:09	03 PM	
4 <i>C</i>		AshworthA	6/18/2007 3:16	18 PM	
4 <i>C</i>		DAWKINSO	6/18/2007 3:32	18 PM	
4C		BlackCL	6/19/2007 9:20	06	

AC: Accepting Entry; SC: Status Change

STL Richland Richland Wa.

Grp Rec Cnt:6 ICOCFractions v4.8.26

6/13/2007 11:55:56 AM Sample Preparation/Analysis Balance Id:1120482733 384868. Pacific Northwest National Laboratory . BC Gross Beta PrpRC5014 Pipet #: Pacific Northwest National Lab S8 Gross Beta by GPC using Sr/Y-90 curve Sep1 DT/Tm Tech: **5I CLIENT: HANFORD** AnalyDueDate: 06/18/2007 \ PM. Quote: SA . 57671 Batch: 7129618 pCi/L Sep2 DT/Tm Tech: SEQ Batch, Test: None Prep Tech: ,BockJ /APA Count On I Off CR Analyst, Comments: Count Detector Initial Aliquot QC Tracer Dish Ppt or Work Order, Lot. Total Time Min (24hr) Circle Init/Date Size Geometry ld Sample DateTime Amt/Unit Amt/Unit Prep Date 100 1 JWA58-1-AD 198.10a.in 3/A 50.6 J7E040306-1-SAMP Scr: Alpha: -2.37E-04 uCi/Sa Beta: 1.92E-03 uCi/Sa 05/03/2007 08:46 AmtRec: 20ML.2XLP.2X4LP #Containers: 5 2003 75.40q,in 2 JWEPC-1-AC 200 46.4 J7E070107-1-SAMP Beta: -1/69E-03 uCi/Sa Scr: Alpha: 1.76E-03 uCi/Sa AmtRec: 20ML.500ML.5XLP.4LP #Containers: 8 05/04/2007 11:30 318 3 JWEPQ-1-AD 199.60g,in (00) 74.1 J7E070107-5-SAMP Scr: Alpha: 2.43E-04 uCi/Sa Beta: 1.22E-04 uCi/Sa #Containers: 6 AmtRec: 20ML.500ML.4XLP 05/04/2007 10:36 4 JWEP5-1-AC 198.40g,in 316) 106.0 J7E070109-2-SAMP Scr: Alpha: 3.90E-07 uCi/Sa Beta 1.22E-04 uCi/Sa AmtRec: 20ML,500MLP,LP #Containers: 3 05/04/2007 10:36 184.90a.in 310 5 JWEP6-1-AC 93.3 J7E070109-3-SAMP Scr: .98E-04 uCi/Sa Beta: 5.67E-05 uCi/Sa AmtRec: 20ML.500MLP.LP #Containers: 3 Alpha: 05/04/2007 11:23 186.10q,in 6 JWEP6-1-AE-X 101.8 J7E070109-3-DUP Alpha: 1.98E-04 uCi/Sa Beta: 5.67E-05 uCi/Sa Scr: 05/04/2007 11:23 AmtRec: 20ML.500MLP.LP #Containers: 3 198.70g,in 320 7 JWEP8-1-AC J7E070109-4-SAMP Beta: 1.70E-04 uCi/Sa Scr: Alpha: 1.02E-05 uCi/Sa 05/04/2007 11:23 AmtRec: 20ML,500MLP,LP #Containers: 3 WO Cnt: 7 ISV - Insufficient Volume for Analysis Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 1 STL Richland

pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

Richland Wa.

Prep_SamplePrep v4.8.26

6/13/2007 11:55:59 AM Sample Preparation/Analysis Balance Id:1120482733 384868. Pacific Northwest National Laboratory . BC Gross Beta PrpRC5014 Pipet #: Pacific Northwest National Lab S8 Gross Beta by GPC using Sr/Y-90 curve Sep1 DT/Tm Tech: 51 CLIENT: HANFORD AnalyDueDate: 06/18/2007 pCi/L PM, Quote: SA, 57671 Batch: 7129618 Sep2 DT/Tm Tech: SEQ Batch, Test: None Prep Tech: ,BockJ Count On | Off Detector CR Analyst. Comments: Dish Ppt or Count Work Order, Lot. Total Initial Aliquot QC Tracer Prep Date Size Geometry Time Min ld (24hr) Circle Init/Date Amt/Unit Sample DateTime Amt/Unit 1826 199.70a.in 8 JWFA8-1-AC 100 32 A 66.6 J7E070107-7-SAMP Alpha: -6.48E-05 uCi/Sa Beta: 8.13E-05 uCi/Sa 05/04/2007 12:20 AmtRec: LP #Containers: 1 200 2003 201.10a.in 9 JWL3Q-1-AA-B J7E090000-618-BLK #Containers: 1 Scr: Alpha: Beta: 05/04/2007 11:23 AmtRec: 280 BESB3069 10 JWL3Q-1-AC-C 199.20q.in 03/23/07.pd J7E090000-618-LCS 08/08/06,r AmtRec: Scr: Alpha: 05/04/2007 11:23 #Containers: 1 Comments: JWEPQ-SAMP "Comments. No sample sent labeled for alpha/beta. Used a bottle labeled for tech-99. JB 6/13/07"

Cliquets that one reduced one due to weight Screens. PH LZ-0 9B 6-13-07 All Clients for Batch: Pacific Northwest National Lab, SA, 57671 384868, Pacific Northwest National Laboratory JWA581AD-SAMP Constituent List: RPD: RDL:4 pCi/L LCL: UCL: BETA WL3Q1AA-BLK: RPD: RDL:4 pCi/L LCL: UCL: BETA WL3Q1AC-LCS: UCL:130 RPD:20 Sr-90 RDL: pCi/L LCL:70 JWA581AD-SAMP Calc Info: Decay to SaDt: Y Blk Subt .: N Sci.Not.: Y ODRs: B Uncert Level (#s).: 2 JWL3Q1AA-BLK: Sci.Not.: Y ODRs: B Blk Subt .: N Uncert Level (#s) .: 2 Decay to SaDt: Y JWL3Q1AC-LCS: Sci.Not.: Y ODRs: B Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt .: N WO Cnt: 10 ISV - Insufficient Volume for Analysis Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 2 STL Richland Prep_SamplePrep v4.8.26 pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added Richland Wa.

6/13/2007 11:56:02 AM AnalyDueDate: 06/18/2007		N	Sam	ple Prep	aration/An	Balance ld:1120482733 Pipet #: Sep1 DT/Tm Tech:				
			C Gross Beta P		00/ 00 -					
			S8 Gross Beta b 5I CLIENT: HAN		ig Sr/Y-90 cur					
Batch: 7129618		pCi/L						Sep2 DT/Tm T	ech:	
SEQ Batch, Test: None								Pren T	ech: ,BockJ	
Wards Order Let II	Tatal	II Initial Aliquet	I OC Transa		Det er					I Commente
Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
					Approve	d By			Date:	
					~~					
			,							
									.359	
	-	fi - Final Amt, di - Dilut			Page 3	ISV	- Insufficient Vo	olume for Analysis		
STL Richland Ke	-	fi - Final Amt, di - Dilut Reference Dt, ec-Enrich			Page 3	ISV	- Insufficient Vo	olume for Analysis		WO Cnt: 10 _SamplePrep v

6/19/2007 10:55:48 AM

ICOC Fraction Transfer/Status Report ByDate: 6/19/2006, 6/24/2007, Batch: '7129618', User: *ALL Order By DateTimeAccepting

Batch Work Ord	CurStat	us A	ccepting		Comments
7129618					
IC	CalcC	BockJ	6/13/2007 11:4	4:48	
SC		wagarr	IsBatched	5/9/2007 4:41:37 PM	ICOC_RADCALC v4.8.26
SC		BockJ	InPrep	6/13/2007 11:44:48 AM	RICH-RC-5016 Revision 7
SC .		BockJ	Prep1C	6/13/2007 11:56:01 AM	RICH-RC-5014 REVISION 7
SC .		AshworthA	InPrep2	6/15/2007 4:09:09 PM	RICH-RC-5014 REVISION 7
SC .		AshworthA	Prep2C	6/18/2007 3:16:37 PM	RICH-RC-5014 REVISION 7
SC .		DAWKINSO	InCnt1	6/18/2007 3:32:29 PM	RICH-RD-0003 REVISION 5
SC .		DAWKINSO	CalcC	6/18/2007 10:12:52 PM	RICH-RD-0003 REVISION 5
IC .		BockJ	6/13/2007 11:5	6:01	
IC .		AshworthA	6/15/2007 4:09	:09 PM	
IC .		AshworthA	6/18/2007 3:16	:37 PM	
IC .		DAWKINSO	6/18/2007 3:32	:29 PM	
iC		DAWKINSO	6/18/2007 10:1:	2:52	

AC: Accepting Entry; SC: Status Change

STL Richland Richland Wa.

6/13/2007 12:59:28 PM	3/2007 12:59:28 PM Sample Preparation/Analysis						Balance Id:1120482733					
384868, Pacific Northwest Nation Pacific Northwest National Lab	nal Laboratory , AW Gamm TA Gamm	a PrpRC5017 a by HPGE			Pipet #:							
AnalyDueDate: 06/18/2007 \	SINZ 51 CLIEN	T: HANFORD				Sep1 DT/Tm Tec	h:					
Batch: 7129619 WATER SEQ Batch, Test: None	pCi/L	PM, Qu	ote: SA , 576	671		Sep2 DT/Tm Tec	4					
		# 15 March 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				Prep Tec	h: ,BockJ / ௸⊘	A				
Work Order, Lot, Total Sample DateTime Amt/Unit	Initial Aliquot QC Tr Amt/Unit Prep [acer Dish	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:				
1 JWCG1-1-AA J7E040342-1-SAMP	1992.10g,in		toom'	60	GIS	1842	4/20/070p					
05/03/2007 12:13	AmtRec: 20ML,2X500ML,4	LP #Containers: 4	Total State of the	managament of the space of the	Scr:	Alpha: 4.31E-06 uCi/Sa	Beta: -9.	90E-07 uCi/Sa				
2 JWCG1-1-AE-X J7E040342-1-DUP	1931.20g,in			d tales and properties desired to the second of the second	G14	2353						
 	AmtRec: 20ML,2X500ML,4	LP #Containers: 4			Scr:	Alpha: 4.31E-06 uCi/Sa	Beta: -9.	90E-07 uCi/Sa				
3 JWCHW-1-AC	1997.00g,in				G15	2042	ekolo 2010					
J7E040342-2-SAMP	AmtRec: 20ML,2X500ML,L	P,4LP #Containers: 5		a constant of the constant of	, Sor:	Alpha: 1.80E-03 uCi/Sa	Beta: -2.	.11E-04 uCi/Sa				
4 JWCJC-1-AC	2002.00g,in			ige Committee of C	G15	2350						
J7E040342-3-SAMP 05/03/2007 10:56	AmtRec: 20ML,500ML,4XL	P,4LP #Containers: 7			Scr:	Alpha: 3.68E-03 uCi/Sa	Beta: 4.	36E-04 uCi/Sa				
5 JWCJM-1-AC J7E040342-4-SAMP	2000.60g,in		The state of the s	Antifolia in a successiva de la compansión de la compansi	G10	2354						
 	AmtRec: 20ML,2X500ML,L	.P,4LP #Containers: 5		and provide a grant of the control o	Ser:	Alpha: 1.80E-03 uCi/Sa	Beta: 2.	43E-04 uCi/Sa				
6 JWEPC-1-AD J7E070107-1-SAMP	2001.70g,in		All Thrown developments in a supplementary to the s		G13	3 0008		6				
05/04/2007 11:30	AmtRec: 20ML,500ML,5XL	.P,4LP #Containers: 8	N. H. COMMON SERVICE AND ADDRESS OF THE PARTY OF THE PART	Annual State of the Party of th	Scr:	Alpha: 1.76E-03 uCi/Sa	Beta: -1	.69E-03 uCi/Sa				
7 JWEPW-1-AC J7E070107-6-SAMP	1999.4 0 g,in		V	4	G6	0009	b					
05/04/2007 12:20	AmtRec: 20ML,2X500ML,I	_P,4LP #Containers: 5			Scr:	Alpha: 4.40E-03 uCi/Sa 2.	5E-01L Beta: 6.	20E-04 uCi/Sa				
1	Amt, fi - Final Amt, di - Diluted Amt, s1 t, r - Reference Dt, ec-Enrichment Cell,		Page 1	ISV	- Insufficient Volu	ıme for Analysis		VO Cnt: 7 SamplePrep v4.8.26				

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6/13/2007 12:59:31 PM				San	nple Prep	paration/Ana	Balance Id:1120482733 Pipet #:						
				AW Gamma Prp									
				TA Gamma by HPGE									
AnalyDueDate	e: 06/18/2007			5I CLIENT: HANFORD						Sep1 DT/Tm Tech:			
Batch: 71296 SEQ Batch, Test:			pCi/L						Sep2 DT/Tm	Tech:			
OLG Baton, 100t.	. 1401)0						Prep	Tech: ,BockJ					
Work Order, L	.ot, Total	II	Initial Aliquot	QC Tracer	Dish	Ppt or	Count	Detector	Count On Off	CR Analyst,	Comments:		
Sample DateTi	me Amt/U	nit	Amt/Unit	Prep Date	Size	Geometry	Time Min	ld	(24hr) Circle	Init/Date	,		
8 JWL3T-1-AA-B		1	997.00g,in			100.00	100	G8	0010	(/20/07 ON		
J7E090000-619-E	BLK					(00"	s suppose	48	0010		· · ·		
										***********************	/		
05/03/2007 12:13			AmtRec:	#Contain	ers: 1	nurranca _{l es}	The state of the s	Scr	: Alpha:		Beta:		
9 JWL3T-1-AC-C		1	999.90g,in	QCAG1369	A comment of the comm		V		Ca	2354			
J7E090000-619-L	_CS			05/30/07,pd		V	₹		G7 0	2329	D		
				03/07/05,r	****		*************************	***************************************			***************************************		
05/03/2007 12:13			AmtRec:	#Contain	ers: 1			Scr	: Alpha:		Beta:		
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	acific Northwe	st Nationa	l Laboratory	Pacific	Northwest	National Lab,	SA , 57671						
JWCG11AA-SAMP	Constituent L	ist:											
Co-60	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	Cs-134	RDL:0.001		i/L LCL:	UCL:	RPD:		
Cs-137 Eu-154	RDL:6.00E+00 RDL:0.00E+00	pCi/L pCi/L	LCL:70 LCL:	UCL:130 UCL:	RPD:20 RPD:	Cs-137DA Eu-155	RDL:6.001	_	i/L LCL:70	UCL:130 UCL:	RPD:20 RPD:		
K-40	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	Sb-125	RDL:0.001	_	i/L LCL:	UCL:	RPD:		
JWL3T1AA-BLK:													
Co-60	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	Cs-134	RDL:0.00	E+00 p0	i/L LCL:	UCL:	RPD:		
Cs-137	RDL:6.00E+00	pCi/L	LCL:	UCL:	RPD:	Cs-137DA	RDL:6.001	_	i/L LCL:	UCL:	RPD:		
Eu-154	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	Eu-155	RDL:.00E	_	Ci/L LCL:	UCL:	RPD:		
K-40	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	Sb-125	RDL:0.00	E+00 pc	Ci/L LCL:	UCL:	RPD:		
JWL3T1AC-LCS:													
Cs-137	RDL:15	pCi/L	LCL:70	UCL:130	RPD:20	Cs-137DA	RDL:15		Li/L LCL:70	UCL:130	RPD:20		
K-40	RDL:6	pCi/L	LCL:70	UCL:130 UCL:130	RPD:20	Ra-226 RA-228DA	RDL: RDL:		Ci/L LCL:70 Ci/L LCL:70	UCL:130 UCL:130	RPD:20 RPD:20		
RA-228 U-238	RDL:	pCi/L pCi/L	LCL:70 LCL:70	UCL:130	RPD:20 RPD:20	RA-220DA	KDL:	pc	.r/r ncn:/0	007:120	NFD:20		
JWCG11AA-SAMP		F											
1	evel (#s).: 2	Decay	to SaDt: Y	Blk Subt.:	N Sci.	Not.: Y O	Rs: B						
JWL3T1AA-BLK:													
STL Richland	Kev: In - Initial	Amt. fi - Fi	nal Amt. di - Dili	ıted Amt, s1 - Sep	1. s2 - Sen2	Page 2	ISV - I	nsufficient V	olume for Analysis		WO Cnt: 9		
Bichland Wa	=			hment Cell. ct-Co		ŭ			, -	F	Prep_SamplePrep v4.8.2		

pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

Richland Wa.

6/13/2007 12:59:3	4 PM		Sa	mple Prep	aration/A	Balance Id:1120482733						
			AW Gamma P TA Gamma b	AW Gamma PrpRC5017 TA Gamma by HPGE					Pipet #:			
AnalyDueDate: 06	6/18/2007		51 CLIENT: H	IANFORD				Sep1 DT/Tr	n Tech:			
Batch: 7129619 SEQ Batch, Test: Nor	ne	pCi/L						Sep2 DT/Tr				
			Prep Tech									
Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliqi Amt/Uni	uot QC Trace it Prep Date	r Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:		
Uncert Level JWL3T1AC-LCS:	(#s).: 2	Decay to SaDt:	Y Blk Subt.	: N Sci.	Not.: Y	ODRs: B						
Uncert Level	(#s).: 2	Decay to SaDt:	Y Blk Subt.	: N Sci.	Not.: Y	ODRs: B						
					Appro	ved By	Allaha		Date:			
										-		

Page 3

6/21/2007 3:56:28 PM

ICOC Fraction Transfer/Status Report ByDate: 6/21/2006, 6/26/2007, Batch: '7129619', User: *ALL Order By DateTimeAccepting

Q Batch Work	Ord CurStat	tus A	ccepting		Comments
7129619	······································				
AC	CalcC	BockJ	6/13/2007 12:4	5:33	·
SC		wagarr	IsBatched	5/9/2007 4:41:37 PM	ICOC_RADCALC v4.8.26
SC .		BockJ	InPrep	6/13/2007 12:45:33 PM	RICH-RC-5016 Revision 7
SC		BockJ	Prep1C	6/13/2007 12:59:33 PM	RICH-RC-5017 REVISION 6
SC .		AshworthA	InPrep2	6/19/2007 9:09:26 AM	RICH-RC-5017 REVISION 6
5C		AshworthA	Prep2C	6/20/2007 4:28:56 PM	RICH-RC-5017 REVISION 6
SC .		DAWKINSO	InCnt1	6/20/2007 5:05:45 PM	RICH-RD-0007 REVISION 6
SC		StringerR	CalcC	6/21/2007 7:55:01 AM	RICH-RD-0007 REVISION 6
AC		BockJ	6/13/2007 12:59	9:33	
1C		AshworthA	6/19/2007 9:09:	26	
AC		AshworthA	6/20/2007 4:28:	56 PM	
4 <i>C</i>		DAWKINSO	6/20/2007 5:05:	45 PM	
4 <i>C</i>		StringerR	6/21/2007 7:55:	01	

AC: Accepting Entry; SC: Status Change

STL Richland Richland Wa.

Grp Rec Cnt:6 ICOCFractions v4.8.26

6/13/2007 1:14:10 PM Sample Preparation/Analysis Balance Id:1120482733 384868, Pacific Northwest National Laboratory, BN I-129 Prp/SepRC5025 Pipet #: Pacific Northwest National Lab TB Gamma by LEPD Sep1 DT/Tm Tech: AnalyDueDate: 06/18/2007 (205) 72 **5I CLIENT: HANFORD** Batch: 7129613 WATER pCi/L PM. Quote: SA . 57671 Sep2 DT/Tm Tech: SEQ Batch, Test: None Prep Tech: ,BockJ Initial Aliquot QC Tracer Dish Ppt or Count On | Off Work Order, Lot. Total Count Detector CR Analyst. Comments: Amt/Unit Amt/Unit Prep Date Size Geometry Time Min ld (24hr) Circle Init/Date Sample DateTime 1 JWA5N-1-AA 3905.30q.in ITA6381 6/18/57 06/12/07 J7F040299-1-SAMP 05/03/2007 11:27 Beta: -7.11E-04 uCi/Sa AmtRec: 20ML.2X4LP #Containers: 3 Scr: Alpha: 1.33E-03 uCi/Sa 2 JWA5N-1-AC-X 3884.10q,in ITA6382 35.0 06/12/07 J7E040299-1-DUP 05/03/2007 11:27 AmtRec: 20ML.2X4LP #Containers: 3 Scr: Alpha: 1.33E-03 uCi/Sa Beta: -7.11E-04 uCi/Sa 3 JWA58-1-AE 3934.90q,in ITA6383 35.7 06/12/07 J7E040306-1-SAMP 05/03/2007 08:46 AmtRec: 20ML,2XLP,2X4LP #Containers: 5 Scr: Alpha: -2.37E-04 uCi/Sa Beta: 1.92E-03 uCi/Sa 4 JWEQK-1-AC 3907.10q,in ITA6384 1015 340 06/12/07 J7E070112-1-SAMP Scr: Alpha: 1.65E-03 uCi/Sa 05/04/2007 09:20 AmtRec: 20ML, LP, 2X4LP #Containers: 4 Beta: -1.22E-03 uCi/Sa 5 JWH5W-1-AA 3884.20g,in ITA6385 350 1618 06/12/07 J7E080312-1-SAMP AmtRec: 20ML,500ML,2X4LP 05/07/2007 10:59 #Containers: 4 Scr: Alpha: 1.01E-03 uCi/Sa Beta: 2.30E-04 uCi/Sa 6 JWH50-1-AC 3870.60a.in ITA6386 15/07 n 1619 34.6 06/12/07 J7E080313-1-SAMP Beta: -2.42E-04 uCi/Sa 05/07/2007 09:36 AmtRec: 20ML,500ML,LP,2X4LP #Containers: 5 Scr: Alpha: 9.72E-04 uCi/Sa 1809 7 JWL3M-1-AA-B 3998.50q,in ITA6387 6/15/07000 12 06/12/07 J7E090000-613-BLK 05/03/2007 11:27 AmtRec: #Containers: 1 Scr: Alpha: Beta: WO Cnt: 7 Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 1 ISV - Insufficient Volume for Analysis STL Richland Prep SamplePrep v4.8.26 pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added Richland Wa.

			BN I-129 Prp/Se ΓΒ Gamma by	epRC5 LEPD	025	ration/	Anal	ysis	Balance ld:1120482733 Pipet #: Sep1 DT/Tm Tech:				
nalyDueDate: 06/18/20	007	0.7	51 CLIENT: HA	ANFOR					****	- 			
atch: 7129613 Q Batch, Test: None		pCi/L								Sep2 DT/Tr	n Tech:		
·				ı						Pre	p Tech:	,BockJ	
	Fotal mt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date		Dish Size	Ppt or Geomet		Count Time Min	Detector Id	Count On Off (24hr) Circle		CR Analyst, Init/Date	Comments
JWL3M-1-AC-C E090000-613-LCS		3997.80g,in	ISD0753 06/13/07			35,	8	100 Th	1812	6/14/07	JAI		
- 	Management of the state of the	AmtRec:	#Contain	ners: 1	************		- 4 - 4 - 5 - 5		Scr	: Alpha:			Beta:
omments: PH - Ne	rokel	966-13	5-00										
		,	,										
Clients for Batch:													
384868, Pacific Nor	thwest Natio	nal Laboratory	Pacific	North	west Na	ational I	ab,	SA , 57671	•				
		nal Laboratory	Pacific	North	west Na	ational I	ab,	SA , 57671					
A5N1AA-SAMP Constitue	nt List:		Pacific UCL:	North	-	ational I	ab,	SA , 57671	-				
A5N1AA-SAMP Constitue 1-129 RDL:1.00E L3M1AA-BLK: 1-129 RDL:1.00E	nt List: +00 pCi/L	LCL:				ational I	ab,	SA , 57673	_			142 <u></u>	
A5N1AA-SAMP Constitue I-129 RDL:1.00E L3M1AA-BLK: I-129 RDL:1.00E L3M1AC-LCS: I-129 RDL:5	nt List: +00 pCi/L +00 pCi/L	LCL:	UCL:	RPD:		ational I	ab,	SA , 5767					·
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6/18/2007 2:02:02 PM

ICOC Fraction Transfer/Status Report ByDate: 6/18/2006, 6/23/2007, Batch: '7129613', User: *ALL Order By DateTimeAccepting

Q Batch Wor	k Ord CurStat	us A	ccepting		Comments
7129613					
4 <i>C</i>	CalcC	BockJ	6/13/2007 12:0	4:23	
SC		wagarr	IsBatched	5/9/2007 4:41:37 PM	ICOC_RADCALC v4.8.26
SC		BockJ	InPrep	6/13/2007 12:04:23 PM	RICH-RC-5016 Revision 7
SC .		BockJ	Prep1C	6/13/2007 1:14:14 PM	RICH-RC-5017 REVISION 6
SC		BostedD	InPrep2	6/13/2007 1:18:13 PM	RICHRC5025 REV3
SC .		BostedD	Prep2C	6/15/2007 12:15:43 PM	RICHRC5025 REV3
SC		BlackCL	InCnt1	6/15/2007 12:18:52 PM	RICH-RD-0007 REVISION 6
C		DAWKINSO	CalcC	6/15/2007 7:34:51 PM	RICH-RD-0007 REVISION 6
C		BockJ	6/13/2007 1:14	14 PM	
IC		BostedD	6/13/2007 1:18	13 PM	
IC		BostedD	6/15/2007 12:1	5:43	
iC		BlackCL	6/15/2007 12:1	3:52	
4 <i>C</i>		DAWKINSO	6/15/2007 7:34	51 PM	

AC: Accepting Entry; SC: Status Change

STL Richland Richland Wa.

Grp Rec Cnt:6 ICOCFractions v4.8.26

ZEAERN ZIL

*** RE-COUNT REQUEST ***

그는 그는 그림은 열리 일반을 하는 그는 그림 학생들들의 대통상으로 하고 있는 결혼했다.	1UC
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REASON FOR REQUEST & ANALYSIS COMMENTS	
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Znsor	TOTAL STREET OF
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	CUSTOMER POL

20/2007 12:49:03 34868, Pacific Noracific Northwest Na nalyDueDate: 06	thwest Nationa ational Lab	ıl Laboratory ,	FP Tc-99 Pr S5 Technet	ample Prepa p/SepRC5065 ium-99 by Liquid HANFORD		lysis		Balance Pipe Sep1 DT/Tm Ted	t #:	
atch: 7171388 EQ Batch, Test: Non	WATER	pCi/L			ote: SA , 576	71	7.00044.000	Sep2 DT/Tm Ted		
Vork Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
WCG1-2-AC E040342-1-SAMP 		Amtf	Rec: 20ML,2X500ML,4LP	#Containers: 4			Scr:	Alpha: 4.31E-06 uCi/Sa	Beta: -9:	 90E-07 uCi/Sa
WCHW-2-AD :040342-2-SAMP 		Amtf		4LP #Containers: 5			Scr:	Alpha: 1.80E-03 uCi/Sa	Beta: -2.	11E-04 uCi/Sa
WCJM-2-AD E040342-4-SAMP -		Amtf	Rec: 20ML,2X500ML,LP,	4LP #Containers: 5			Scr:	Alpha: 1.80E-03 uCi/Sa	Beta: 2.4	13E-04 uCi/Sa
WEPW-2-AD :070107-6-SAMP 		Amtí	Rec: 20ML,2X500ML,LP,	4LP #Containers: 5			Scr: A	lpha: 4.40E-03 uCi/Sa 2.	.5E-01L Beta: 6.2	20E-04 uCi/Sa
WEPW-2-AF-S :070107-6-MS 		Amti	 Rec: 20ML,2X500ML,LP,	4LP #Containers: 5			Scr: A	lpha: 4.40E-03 uCi/Sa 2.	.5E-01L Beta: 6.2	20E-04 uCi/Sa
080312-1-SAMP			Rec: 20ML,500ML,2X4LF				Scr:	Alpha: 1.01E-03 uCi/Sa		30E-04 uCi/Sa
E080312-1-DUP 		Amtl	Rec: 20ML,500ML,2X4LF	#Containers: 4			Scr:	Alpha: 1.01E-03 uCi/Sa	Beta: 2.3	30E-04 uCi/Sa
STL Richland K	-		di - Diluted Amt, s1 - c-Enrichment Cell, ct		Page 1	ISV - Ir	nsufficient Volun	ne for Analysis	V	/O Cnt: 7 ICOC v4.8

		S	Sample Prepa	aration/ <i>i</i>	Balance	ld:				
			p/SepRC5065					Pipe	et #:	
			ium-99 by Liquic HANFORD	l Scint				Sep1 DT/Tm Te	och.	
nalyDueDate: 06/18/2007	<u> </u>	JI OLILINI.	TIANI OND					•		
Fatch: 7171388 EQ Batch, Test: None	pCi/L							Sep2 DT/Tm Te	ech:	
,								Prep Te	ech:	
Vork Order, Lot, Total Amt Sample Date /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Trace Prep Da		unt e Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
JWL3K-2-AA-B				<u> </u>			·			
'E090000-611-BLK										
	An	ntRec: #Co	ntainers: 1		### W.W.W	*=	Scr:	Alpha:		Beta:
JWL3K-2-AC-C										
E090000-611-LCS										
5/07/2007 10:59	An	ntRec: #Co	ntainers: 1			· -	Scr:	Alpha:		Beta:
JWL3K-2-AD-BN										
E090000-611-IBLK										
5/07/2007 10:59	An	ntRec: #Co	ntainers: 1				Scr:	Alpha:		Beta:
								· · · · · · · · · · · · · · · · · · ·		***************************************
Comments:							Annual Control of the			
				THE STATE OF THE S			n e dali a u u			
				All	APAIN, AAAI,					
Comments:					**************************************					
Comments:	t National Labo	oratory Paci	fic Northwest N	ational L	ab, SA,	57671				
Comments: 1 Clients for Batch: 384868, Pacific Northwese CG12AC-SAMP Constituent Li	st:			ational L	ab, SA,	57671				
CG12AC-SAMP Constituent Lite-99 RDL:15	st:	ratory Paci:	Fic Northwest N	ational L	ab, SA,	57671				
Comments: 1 Clients for Batch: 384868, Pacific Northwes: CG12AC-SAMP Constituent Li. Tc-99 RDL:15 EPW2AF-MS:	st:			ational L	ab, SA,	57671				
Comments: 1 Clients for Batch: 384868, Pacific Northwes: CG12AC-SAMP Constituent Li. Tc-99 RDL:15 EPW2AF-MS: L3K2AA-BLK: Tc-99 RDL:15	st:	:70 UCL:130		ational L	ab, SA,	57671				
Comments: 1 Clients for Batch: 384868, Pacific Northwes: CG12AC-SAMP Constituent Li. FC-99 RDL:15 EPW2AF-MS: L3K2AA-BLK: FC-99 RDL:15 L3K2AC-LCS: FC-99 RDL:15	st: pCi/L LCL pCi/L LCL	:70 UCL:130	RPD:20	ational L	ab, SA,	57671				
Comments: 1 Clients for Batch: 384868, Pacific Northwes: CG12AC-SAMP Constituent Li. TC-99 RDL:15 EPW2AF-MS: L3K2AA-BLK: TC-99 RDL:15 L3K2AC-LCS: TC-99 RDL:15 L3K2AC-LCS: TC-99 RDL:15	st: pCi/L LCL pCi/L LCL	.: UCL: .:70 UCL:130	RPD:20	ational L	ab, SA,	57671				
CG12AC-SAMP Constituent Lite-99 RDL:15 L3K2AA-BLK: TC-99 RDL:15 L3K2AC-LCS: TC-99 RDL:15 L3K2AC-LCS: TC-99 RDL:15 L3K2AD-IBLK: TC-99 RDL:15 L3K2AD-IBLK: TC-99 RDL:15	st: pCi/L LCL pCi/L LCL pCi/L LCL	:: UCL: :: UCL: :: UCL: :: UCL:	RPD:20 RPD: RPD:20 RPD:20			57671				
Comments: 1 Clients for Batch: 384868, Pacific Northwest CG12AC-SAMP Constituent Li Tc-99 RDL:15 JEPW2AF-MS: JEPW2AF-MS: JEC-99 RDL:15 st: pCi/L LCL pCi/L LCL	:: UCL: :: UCL: :: UCL: :: UCL:	RPD:20 RPD: RPD:20 RPD:20	Tational L	ab, SA, ODRs: B	57671					

6/20/2007 12:49	:10 PM	***************************************		ample Prepa	aration/Ana	alysis	· · · · · · · · · · · · · · · · · · ·	Balance	ld:	
				p/SepRC5065 ium-99 by Liquid	l Scint			Pipe	t #:	
AnalyDueDate:	06/18/2007		5I CLIENT:	Sep1 DT/Tm Tech:						
Batch: 7171388 SEQ Batch, Test: N		pCi/L						Sep2 DT/Tm Ted	ch:	
OLG Baton, Test. 1	VOLIE							Prep Te	ch:	
Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
JWL3K2AA-BLK: Uncert Leve	el (#s).: 2	Decay to SaDt:	Y Blk Subt	: N Sci.N	ot.: Y OI	DRs: B				
	el (#s).: 2	Decay to SaDt	Y Blk Subt	: N Sci.No	ot.: Y OI	DRs: B				
	el (#s).: 2	Decay to SaDt	Y Blk Subt	:: N Sci.No	ot.: Y OI	DRs: B				
					Approved	ву			Date:	V-11
•										

6/22/2007 10:35:49 AM

ICOC Fraction Transfer/Status Report ByDate: 6/22/2006, 6/27/2007, Batch: '7171388', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStat	us	Accepting		Comments
7171388						
AC		CalcC	StringerR	6/20/2007 1:04:	28 PM	
SC			antonsonl	IsBatched	6/20/2007 11:39:56 AM	ICOC_RADCALC v4.8.26
SC			StringerR	InCnt1	6/20/2007 1:04:28 PM	RICH-RD-0001 REVISION 4
SC			BlackCL	CalcC	6/21/2007 10:39:16 AM	RICH-RD-0001 REVISION 4
AC			BlackCL	6/21/2007 10:39	9:16	

AC: Accepting Entry; SC: Status Change

6/13/2007 10:08:20			Sample P	reparation	/Analysis		Balance	ld:1120482733	ALL AND DESCRIPTION OF THE PARTY OF THE PART
84868, Pacific North acific Northwest Natio		•	99 Prp/SepRC50 chnetium-99 by l				Pipe	et #:	
nalyDueDate: 06/1	8/2007		IENT: HANFORD	-			Sep1 DT/Tm Te	ech:	
atch: 7129612 EQ Batch, Test: None		pCi/L FPS5, 7129612 AMS5,		M, Quote: SA 129619 AWTA,			Sep2 DT/Tm Te	ech: ech: BockJ	
				المهموسيين المستحصونات		والمراجع المراجع			1
Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On (24hr) Circ		R Analyst, Init/Date	Comments:
JWCJC-1-AF		124.80g,in		40					
'E040342-3-SAMP				, UV					
		AmtRec: 20ML,500Ml	4XLP.4LP #Contai	inere: 7		 Scr:	Alpha: 3.68E-03 uCi/S	a Rota	4.36E-04 uCi/Sa
JWEPC-1-AE		126.80g,in	-,-XL1 ,-L1 #00man	1013. 7		001.	7.1pma. 0.002 00 dollo	d Dota.	+.00L 0+ d0#0d
7E070107-1-SAMP		12.0.00g,III		and the second					
5/04/2007 11:30		AmtRec: 20ML,500Ml	5XLP.4LP #Contai	iners: 8		Scr:	Alpha: 1.76E-03 uCi/S	Sa Beta:	-1.69E-03 uCi/Sa
JWEPC-1-AG-X		125.00g,in	,						
E070107-1-DUP				C April 10 A A A A A A A A A A A A A A A A A A					

5/04/2007 11:30	EI 3 2 2 Mil	AmtRec: 20ML,500Ml	_,5XLP,4LP #Contai	iners: 8		Scr:	Alpha: 1.76E-03 uCi/S	a Beta:	-1.69E-03 uCi/Sa
JWEPG-1-AC		126.80g,in		d and a second					
7E070107-2-SAMP				(national programs)					
 5/04/2007 08:58		AmtRec: 20ML,500M	L.4XLP #Containe	ers: 6		Scr:	Alpha: -4.63E-05 uCi/S	Sa Beta:	8.51E-04 uCi/Sa
JWEPG-1-AE-S		124.50g,in	TCSG1822						
7E070107-2-MS		12 11009,111	06/05/07,pd	to an agree of the Add the					
CONTRACTOR OF THE PROPERTY OF	MANAGEMENT AND ASSESSMENT ASSESSMENT AND ASSESSMENT A		01/10/06,r			*****			
5/04/2007 08:58		AmtRec: 20ML,500M	L,4XLP #Containe	ers: 6		Scr:	Alpha: -4.63E-05 uCi/S	3a Beta:	8.51E-04 uCi/Sa
JWEPK-1-AC		125.50g,in		il and the second secon					
7E070107-3-SAMP									
MASSESSEE			. (VI D	•		0	Alabaa 4.00E 04030	D-t-	1.005.04030-
05/04/2007 08:58		AmtRec: 20ML,500M	L,4XLP #Containe	ers: 6		Scr:	Alpha: 4.38E-04 uCi/S	a Beta:	-1.22E-04 uCi/Sa
JWEPP-1-AC		127.10g,in		V					
7E070107-4-SAMP 								***************************************	
05/04/2007 09:56		AmtRec: 20ML,500M	L,4XLP #Containe	ers: 6		Scr:	Alpha: 6.02E-05 uCi/S	Sa Beta:	6.57E-04 uCi/Sa
									-
			1 - 1 O - 1 O O	O D 1	1017	Inc. officiant Malian	no for Apolicais		WO Cnt: 7
STL Richland Key Richland Wa.	·	inal Amt, di - Diluted Am ence Dt, ec-Enrichment (•		157	- Insufficient Volun	ne for Analysis		p_SamplePrep v4.8

6/13/2007 10:08:24 384868, Pacific North Pacific Northwest Nati	west National Lab	-	Sample P c-99 Prp/SepRC50 echnetium-99 by I		Analysis	2	Balance Id:11 Pipet #:	20482733
AnalyDueDate: 06/1	18/2007		LIENT: HANFORD			s	ep1 DT/Tm Tech:	
Batch: 7129612 SEQ Batch, Test: None	WATER	pCi/L	PI	M, Quote: SA,	57671	S	ep2 DT/Tm Tech:	
one baton, root. Nono			118				Prep Tech: ,E	BockJ
Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analy Init/Dat	
8 JWEPQ-1-AE		125.40g,in		.60				
J7E070107-5-SAMP				,00				
05/04/2007 10:36		AmtRec: 20ML,500f	ML,4XLP #Containe	ırs: 6		Scr: Alp	ha: 2.43E-04 uCi/Sa	Beta: -1,22E-04 uCi/Sa
9 JWL3L-1-AA-B		125.60g,in			Access to the second			7,400.00
J7E090000-612-BLK	11 S 1902 W 5012			of Classical Propaga				
05/04/2007 11:30	ACCOUNTY OF THE PROPERTY OF TH	AmtRec:	#Containers: 1			Sor:	Alpha:	Beta:
10 JWL3L-1-AC-C		125.00g,in	TCSE2117	Control of the Contro				
J7E090000-612-LCS	1 1 NN 18 MIR		05/09/07,pd 01/10/06,r	Service a consumption				
05/04/2007 11:30		AmtRec:	#Containers: 1	The second secon		Scr:	Alpha:	Beta:
11 JWL3L-1-AD-BN				4				
J7E090000-612-IBLK								
05/04/2007 11:30	A CAMPAGNAMA A CAM	AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
Comments: $\Re \mu$ \angle	7.0 08 6-1	3-01						
•	<i>y</i>							
All Clients for Bat 384868, Pacific	ch: Northwest Natio	onal Laboratory	Pacific Northwe	est National La	b, SA, 5767	71		
WCJC1AF-SAMP Const Tc-99 RDL:1 WEPG1AE-MS:	ituent List: .50E+01 pCi/	L LCL:70 UC	CL:130 RPD:20	0		4-97-107-107-107-107-107-107-107-107-107-10	THE STATE OF THE S	
	50E+01 pCi/	L LCL: UC	CL: RPD:				•	
WL3L1AC-LCS: Tc-99 RDL:1	.5 pCi/1	L LCL:70 UC	CL:130 RPD:2	0				
STL Richland Key	•	- Final Amt, di - Diluted Al ference Dt, ec-Enrichment	• •		ISV	- Insufficient Volume fo	r Analysis	WO Cnt: 11 Prep_SamplePrep v4.8

6/13/2007 10:08:28 AM	1		Sample	Preparation/	/Analysis		Balance Id:	
			Tc-99 Prp/SepRC Technetium-99 by					
AnalyDueDate: 06/18/	2007		I CLIENT: HANFOF	•		Sep1		
Batch: 7129612 SEQ Batch, Test: None	· · · · · · · · · · · · · · · · · · ·	pCi/L	· · · · · · · · · · · · · · · · · · ·	A., AND EXPERIENCE.	· · · · · · · · · · · · · · · · · · ·	Sep2	DT/Tm Tech:	
							Prep Tech:	
Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
WL3L1AD-IBLK: Tc-99 RDL:1.50	0E+01 pCi/L	LCL:	UCL: RPD:					
WCJC1AF-SAMP Calc In: Uncert Level (#s; WEPG1AE-MS:		to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B			
Uncert Level (#s)).: 2 Decay	to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B			
Uncert Level (#s) WL3L1AC-LCS:).: 2 Decay	to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B			
Uncert Level (#s) • 2 Decay	to SaDt: Y	Blk Subt · N	Sci.Not.: V	ODRs. B			

Sci.Not.: Y

Page 3

Blk Subt.: N

ODRs: B

JWL3L1AD-IBLK:

Uncert Level (#s).: 2 Decay to SaDt: Y

6/20/2007 4:01:51 PM

ICOC Fraction Transfer/Status Report ByDate: 6/20/2006, 6/25/2007, Batch: '7129612', User: *ALL Order By DateTimeAccepting

Q Batch W	ork Ord CurStat	us	Accepting		Comments
7129612					
4C	CalcC	BockJ	6/13/2007 9:53	:34	
SC		wagarr	IsBatched	5/9/2007 4:41:37 PM	ICOC_RADCALC v4.8.26
SC		BockJ	InPrep	6/13/2007 9:53:34 AM	RICH-RC-5016 Revision 7
SC		BockJ	Prep1C	6/13/2007 10:08:22 AM	RICH-RC-5016 REVISION 7
SC		FABREM	Sep1C	6/18/2007 11:30:15 AM	RICH-RC-5078 REV 4
SC		BlackCL	InCnt1	6/18/2007 11:39:36 AM	RICH-RD-0001 REVISION 4
SC		BlackCL	CalcC	6/19/2007 12:14:36 PM	RICH-RD-0001 REVISION 4
AC		BockJ	6/13/2007 10:0	8:22	
AC		FABREM	6/18/2007 11:3	0:15	
AC		BlackCL	6/18/2007 11:3	9:36	
4 <i>C</i>		BlackCL	6/19/2007 12:1	4:36	

AC: Accepting Entry; SC: Status Change

5/9/2007 4:39:07 PM	Sample F	Preparation/Ar	alysis		Balance Id: /a	2445
384868, Pacific Northwest National Laboratory Pacific Northwest National Lab	S6 Tritium by Liquid S	Scint			Pipet #:	
AnalyDueDate: 06/18/2007 () 5\	51 CLIENT: HANFORI)		S	ep1 DT/Tm Tech: 6	-15-0162
Batch: 7129620 WATER pC	i/L P	M, Quote: SA, 57	'671	S	ep2 DT/Tm Tech:	
SEQ Batch, Test: None				F 题 E E 和 题 F E F 题 题 E	Prep Tech:	
Work Order, Lot, Total	Initial Aliquot QC Tracer	Count	Detector	Count On Off	CR Analyst,	Comments:
Sample DateTime Amt/Unit	Amt/Unit Prep Date	Time Min	ld	(24hr) Circle	Init/Date	
1 JWA58-1-AA						
J7E040306-1-SAMP						
Maria Ma	A 10 0014 014 D 0144 D 140 1			Som	Alaba	Beta:
05/03/2007 08:46	AmtRec: 20ML,2XLP,2X4LP #Contain	ers: 5		Scr:	Alpha:	Deid.
2 JWCHW-1-AA J7E040342-2-SAMP						
05/03/2007 09:55	AmtRec: 20ML,2X500ML,LP,4LP #Conta	ainers: 5		Scr:	Alpha:	Beta:
3 JWCJC-1-AA						`
J7E040342-3-SAMP						
	AmtDog: 20MU E00MU AVI D 4LD #Cont	ainers: 7		Scr:	Alpha:	Beta:
05/03/2007 10:56	AmtRec: 20ML,500ML,4XLP,4LP #Conta	1111615. /		JGI.	Λίβτια.	Dota.
4 JWCJM-1-AA J7E040342-4-SAMP						*
05/03/2007 12:42	AmtRec: 20ML,2X500ML,LP,4LP #Conta	ainers: 5		Scr:	Alpha:	Beta:
5 JWEPC-1-AA						
J7E070107-1-SAMP						*
	AmtRec: 20ML,500ML,5XLP,4LP #Conta	ainers: 8		Scr:	Alpha:	Beta:
05/04/2007 11:30 6 JWEPG-1-AA	ATTICHEC. ZUIVIL, SUUVIL, SALF, 4LF #OUTE	aniers. o		00.	ruprac	
J7E070107-2-SAMP						
05/04/2007 08:58	AmtRec: 20ML,500ML,4XLP #Contain	ners: 6		Scr:	Alpha:	Beta:
7 JWEPK-1-AA						
J7E070107-3-SAMP						
	AmtRec: 20ML,500ML,4XLP #Contain	ners: 6		Scr:	Alpha:	Beta:
05/04/2007 08:58	ATTICLE ZUIVIL, JUUVIVIL, 4ALF #COTTIAII	1010. 0		30,7		
1 "	Amt, dî - Diluted Amt, s1 - Sep1, s2 - S		ISV -	nsufficient Volume fo	r Analysis	WO Cnt: 7
Richland Wa. pd - Prep Dt, r - Reference	e Dt, ec-Enrichment Cell, ct-Cocktailed	Added				ICOC v4.8.26

/9/2007 4:39:09 PM 84868, Pacific Northwest National Laborato Pacific Northwest National Lab	•	Sample Pre Prp/SepRC5007 ium by Liquid Scin	•	Analysis		Balance Id: /2 Pipet #:	445
nalyDueDate: 06/18/2007		ENT: HANFORD	•		Se	p1 DT/Tm Tech: 6.	15-070m
atch: 7129620 WATER p	Ci/L	PM,	Quote: SA ,	57671	Se	p2 DT/Tm Tech:	_
EQ Batch, Test: None						Prep Tech:	
Work Order, Lot, Sample DateTime Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
JWEPK-1-AE-X							
7E070107-3-DUP 	AmtRec: 20ML,500ML	,4XLP #Containers: 6			Scr:	Alpha:	Beta:
JWEPP-1-AA							
7E070107-4-SAMP							
	AmtRec: 20ML,500ML	,4XLP #Containers: 6			Scr:	Alpha:	Beta:
JWEPQ-1-AA							
7E070107-5-SAMP 		~~~					
	AmtRec: 20ML,500ML	.,4XLP #Containers: 6			Scr:	Alpha:	Beta:
JWEPW-1-AA							
7E070107-6-SAMP							
5/04/2007 12:20	AmtRec: 20ML,2X500	ML,LP,4LP #Containers	: 5		Scr:	Alpha:	Beta:
JWEQK-1-AA					ar white a second secon		
7E070112-1-SAMP							
	AmtRec: 20ML,LP,2X	4LP #Containers: 4			Scr:	Alpha:	Beta:
3 JWH50-1 -AA							
7E080313-1-SAMP 		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~					
5/07/2007 09:36	AmtRec: 20ML,500Ml	_,LP,2X4LP #Containers	:: 5		Scr:	Alpha:	Beta:
JWL3V-1-AA-B							
7E09000-620-BLK 							
	AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
STL Richland Key: In - Initial Amt, fi - Fina Richland Wa. pd - Prep Dt, r - Referer				ISV	- Insufficient Volume for	Analysis	WO Cnt: 14 ICOC v4.8

5/9/2007 4:39:10 PM		Sample Pr	reparation/A	nalysis		Balance Id: 12445				
		-3 Prp/SepRC5007				Pipet #:				
4		itium by Liquid So LIENT: HANFORD	int		Sep1 DT/Tm Tech: 6-15-0764-					
AnalyDueDate: 06/18/2007		LIENT. HANTOND								
Batch: 7129620 SEQ Batch, Test: None	pCi/L				Sep	2 DT/Tm Tech:				
		meert in a secretary of the secretary of				Prep Tech:				
Work Order, Lot, Total Sample DateTime Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:			
15 JWL3V-1-AC-C										
J7E090000-620-LCS										
05/04/2007 08:58	AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:			
16 JWL3V-1-AD-BX										
J7E090000-620-MBLK										
05/04/2007 08:58	AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:			
17 JWL3V-1-AE-CM										
J7E090000-620-MLCS										
05/04/2007 08:58	AmtRec:	#Containers: 1		-	Scr:	Alpha:	Beta:			
18 JWL3V-1-AF-BN										
J7E090000-620-IBLK										
05/04/2007 08:58	AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:			
19 JWL3V-1-AG-BN										
J7E09000-620-IBLK										
05/04/2007 08:58	AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:			
20 JWL3V-1-AH-BN										
J7E090000-620-IBLK					, _ u	······································				
05/04/2007 08:58	AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:			

Page 3

Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2

pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

STL Richland

Richland Wa.

WO Cnt: 20

ICOC v4.8.26

ISV - Insufficient Volume for Analysis

5/9/2007 4:39:18 PM

Sample Preparation/Analysis

AR H-3 Prp/SepRC5007 S6 Tritium by Liquid Scint

5I CLIENT: HANFORD

Balance Id: 12445

Pipet #: ______

Sep1 DT/Tm Tech: 6-15-075in

ICOC v4.8.26

Batch: 7129620

AnalyDueDate: 06/18/2007

pCi/L

Sep2 DT/Tm Tech:

pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

SEQ Batch, Test: None

Prep Tech:

Work Order, Lot,	Total	Initial Aliquot	QC Tracer	Count	Detector	Count On Off	CR Analyst,	Comments:		
Sample DateTime	Amt/Unit	Amt/Unit	Prep Date	Time Min	ld	(24hr) Circle	Init/Date			

Comments:

Richland Wa.

Il Clients for Batch: 384868, Pacific Nort	hwest Nationa	l Laboratory	Pacific N	orthwest National	Lab, SA, 57671	
WA581AA-SAMP Constituen	t List:					
H-3 RDL:400	pCi/L	LCL:70	UCL:130	RPD:20		
WL3V1AA-BLK:						
H-3 RDL:400	pCi/L	LCL:	UCL:	RPD:		
WL3V1AC-LCS:	_					
H-3 RDL:400	pCi/L	LCL:70	UCL:130	RPD:20		
WL3V1AD-MBLK:						
H-3 RDL:400	pCi/L	LCL:	UCL:	RPD:		
WL3V1AE-MLCS:	a		120			
H-3 RDL:400	pCi/L	LCL:70	UCL:130	RPD:20		
WL3V1AF-IBLK: H-3 RDL:400	CI (T	* 01	TIOT	RPD:		
WL3V1AG-IBLK:	pCi/L	LCL:	UCL:	KPD:		
H-3 RDL:400	pCi/L	LCL:	UCL:	RPD:		
WL3V1AH-IBLK:	БСТ/П	TICE:	OCT:	RPD:		
H-3 RDL:400	pCi/L	LCL:	UCL:	RPD:		
WA581AA-SAMP Calc Info:						
Uncert Level (#s):		to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B	
WL3V1AA-BLK:	2 20003	oo babot x		, 20211100111		
Uncert Level (#s).:	2 Decay	to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B	
WL3V1AC-LCS:						
Uncert Level (#s).:	2 Decay	to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B	
WL3V1AD-MBLK:	_					
Uncert Level (#s).:	2 Decay	to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B	
WL3V1AE-MLCS:						
Uncert Level (#s).:	2 Decay	to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B	
WL3V1AF-IBLK:						
Uncert Level (#s).:	2 Decay	to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B	
WL3V1AG-IBLK:						
Uncert Level (#s).:	2 Decay	to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B	
WL3V1AH-IBLK:						
Uncert Level (#s).:	2 Decay	to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B	
STL Richland Key: In - Ir	nitial Amt fi Fir	al Amt di-Dib	ted Amt, s1 - Sep1,	s2 - Sep2 Page 4	ISV - Insufficient Volume for Analysis	WO Cnt: 20

5/9/2007 4:39:18 PM			Sample Pr	reparation/A	nalysis		Balance Id:		
			Prp/SepRC5007	. ,			Pipet #:		
AnalyDueDate: 06/1	9/2007		tium by Liquid Sc IENT: HANFORD	int	Sep1 DT/Tm Tech:				
Batch: 7129620		pCi/L			Sep2 DT/Tm Tech:				
SEQ Batch, Test: None		poi/L				Sepz i			
							Prep Tech:		
Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:	
				Appro	ved By		Date:		
		inal Amt, di - Diluted Am			ISV -	Insufficient Volume for Anal	ysis	WO Cnt: 20	
Richland Wa.	pd - Prep Dt, r - Refer	ence Dt, ec-Enrichment (Cell, ct-Cocktailed Ad	ded				ICOC v4.8.2	

6/18/2007 4:14:19 PM

ICOC Fraction Transfer/Status Report ByDate: 6/18/2006, 6/23/2007, Batch: '7129620', User: *ALL Order By DateTimeAccepting

Q Batch Work Ord	CurStat	us Ad	ccepting		Comments
7129620					Á
AC	CalcC	McDowellD	6/15/2007 8:18	:27	
SC		wagarr	IsBatched	5/9/2007 4:41:37 PM	ICOC_RADCALC v4.8.26
SC		McDowellD	InSep1	6/15/2007 8:18:27 AM	RICH-RC-5007 REVISION 6
SC		McDowellD	Sep1C	6/15/2007 12:02:48 PM	RICH-RC-5007 REVISION 6
SC		StringerR	InCnt1	6/15/2007 1:10:31 PM	RICH-RD-0001 REVISION 4
SC		StringerR	CalcC	6/17/2007 12:40:51 PM	RICH-RD-0001 REVISION 4
AC		McDowellD	6/15/2007 12:0	2:48	
AC		McDowellD	6/15/2007 1:08	:40 PM	
AC		StringerR	6/15/2007 1:10	:31 PM	
AC		StringerR	6/17/2007 12:4	0:51	
AC		StringerR	6/17/2007 12:4	0:51	

AC: Accepting Entry; SC: Status Change

5/9/2007 4:39:18 PM		Sample Pro	eparation/A	nalysis	A	Balance Id:	12424
384868, Pacific Northwest National Laboratory Pacific Northwest National Lab		Prp/SepRC5024 iched Tritium by I	Liquid Scint				_
AnalyDueDate: 06/18/2007 🕠 ST	For 51 CLI	ENT: HANFORD			S	ep1 DT/Tm Tech:	5-25-07An
Batch: 7129621 WATER pCi/ SEQ Batch, Test: None		PM	, Quote: SA ,	57671	S	ep2 DT/Tm Tech:	
						Prep Tech:	
Work Order, Lot, Sample DateTime Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analy Init/Da	
1 JWEP1-1-AA							
J7E070109-1-SAMP 	AmtRec: 20ML,3XLP	#Containers: 4				Alpha:	Beta:
2 JWEP1-1-AC-X	71111100. 20112,072						
J7E070109-1-DUP							
05/04/2007 12:07	AmtRec: 20ML,3XLP	#Containers: 4			Scr:	Alpha:	Beta:
3 JWL3X-1-AA-B							
J7E090000-621-BLK 			440000000000000000000000000000000000000				
05/04/2007 12:07	AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
4 JWL3X-1-AC-C			300.00				
J7E090000-621-LCS {	~~~~~~						
05/04/2007 12:07	AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
5 JWL3X-1-AD-BN							
J7E090000-621-IBLK 							
05/04/2007 12:07	AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
Comments:							
All Clients for Batch: 384868, Pacific Northwest National La	aboratory	Pacific Northwes	st National La	b, SA, 5767	1		
WEP11AA-SAMP Constituent List: H-3 RDL:1.00E+01 pCi/L	LCL:70 UCL	:130 RPD:20					
STL Richland Key: In - Initial Amt, fi - Final A Richland Wa. pd - Prep Dt, r - Reference			,	ISV -	Insufficient Volume fo	r Analysis	WO Cnt: 5 ICOC v4.8.26

5/9/2007 4:39:23 PM	
3/3/2007 4.33.23 FW	

Sample Preparation/Analysis

Balance Id:

12424

AS H-3 Prp/SepRC5024

5I CLIENT: HANFORD

U3 Enriched Tritium by Liquid Scint

AnalyDueDate: 06/18/2007

Sep1 DT/Tm Tech:

Batch: 7129621

SEQ Batch, Test: None

pCi/L

Sep2 DT/Tm Tech:

Prep Tech:

Work Order, Lo Sample DateTin	' 11	12	Initial Aliqu Amt/Unit	11	Tracer Count Date Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
JWL3X1AA-BLK:									
H-3	RDL:1.00E+01	pCi/L	LCL:	UCL:	RPD:				
JWL3X1AC-LCS:									
H-3	RDL:10	pCi/L	LCL:70	UCL:130	RPD:20				
JWL3X1AD-IBLK:									
H-3	RDL:1.00E+01	pCi/L	LCL:	UCL:	RPD:				
JWEP11AA-SAMP	Calc Info:								
Uncert Le	vel (#s).: 2	Decay to	o SaDt: Y	Blk Subt.:	N Sci.Not.: Y	ODRs: B			
JWL3X1AA-BLK:								· · · · · · · · · · · · · · · · · · ·	
Uncert Le	vel (#s).: 2	Decay to	o SaDt: Y	Blk Subt.:	N Sci.Not.: Y	ODRs: B			
JWL3X1AC-LCS:									
Uncert Le	vel (#s).: 2	Decay to	o SaDt: Y	Blk Subt.:	N Sci.Not.: Y	ODRs: B			
JWL3X1AD-IBLK:									
Uncert Le	vel (#s).: 2	Decay to	o SaDt: Y	Blk Subt.:	N Sci.Not.: Y	ODRs: B			

Page 2

STL Richland Richland Wa.

Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added ISV - Insufficient Volume for Analysis

WO Cnt: 5 ICOC v4.8.26 6/18/2007 4:04:35 PM

ICOC Fraction Transfer/Status Report ByDate: 6/18/2006, 6/23/2007, Batch: '7129621', User: *ALL Order By DateTimeAccepting

Q Batch Wo	ork Ord CurStat	tus Ad	ccepting		Comments
7129621					
1 <i>C</i>	CalcC	McDowellD	5/14/2007 1:11	:07 PM	
SC		wagarr	IsBatched	5/9/2007 4:41:37 PM	ICOC_RADCALC v4.8.26
SC		McDowellD	InPrep	5/14/2007 1:11:07 PM	RICH-RC-5024 REVISION 2
SC .		McDowellD	Sep1C	6/14/2007 3:21:24 PM	RICH-RC-5024 REVISION 2
5C		DAWKINSO	InCnt1	6/14/2007 4:00:46 PM	RICH-RD-0001 REVISION 4
SC .		BlackCL	CalcC	6/18/2007 8:16:56 AM	RICH-RD-0001 REVISION 4
1C		McDowellD	6/14/2007 3:21	:24 PM	
AC		DAWKINSO	6/14/2007 4:00	:46 PM	
4 <i>C</i>		BlackCL	6/18/2007 8:16	:56	

AC: Accepting Entry; SC: Status Change

STL Richland Richland Wa.

Grp Rec Cnt: 4 ICOCFractions v4.8.26

6/14/2007 2:19:32 P	M	Section of the sectio	Sample P	reparation/A	nalysis		E	Balance Id:112048	32733	
884868, Pacific North		, ,	at_Laser PrpRC5					Pipet #:		
			al Uranium by Ki	PA			Cont D	T/Tm Tech:		
nalyDueDate: 06/1	40)21.10	ENT: HANFORD				Sepi D	T/TIII Tech.		
Satch: 7129616 EQ Batch, Test: None	WATER	ug/L	PN	/I, Quote: SA ,	57671		Sep2 D	T/Tm Tech:		
SEQ Batch, rest. None			B 2 2 2					Prep Tech: ,Bock	J	
Work Order, Lot,	Total	Initial Aliquot	QC Tracer	Count	Detector	Count On	Off I	CR Analyst,		Comments:
Sample DateTime	Amt/Unit	Amt/Unit	Prep Date	Time Min	Id	(24hr) Circ		Init/Date		
JWCG1-1-AD		26.90g,in							The street	
7E040342-1-SAMP		O .								

05/03/2007 12:13	IE : REER AIR	AmtRec: 20ML,2X500	ML,4LP #Containe	rs: 4		Scr:	Alpha: 4.31	E-06 uCi/Sa	Beta: -9.	90E-07 uCi/Sa
JWCHW-1-AE		25.10g,in	- Indiana in the second in the							
7E040342-2-SAMP										
						******	***********			
05/03/2007 09:55		AmtRec: 20ML,2X500	ML,LP,4LP #Contain	ners: 5		Scr:	Alpha: 1.80	E-03 uCi/Sa	Beta: -2.	11E-04 uCi/Sa
JWCJC-1-AE		25.30g,in								
7E040342-3-SAMP	1 01 9011 3 9018									
100 March 100 Ma					· · · · · · · · · · · · · · · · · · ·	_				
05/03/2007 10:56		AmtRec: 20ML,500ML	,4XLP,4LP #Contair	ners: 7		Scr:	Alpha: 3.68	BE-03 uCi/Sa	Beta: 4.	36E-04 uCi/Sa
JWCJM-1-AE		25.30g,in								
7E040342-4-SAMP						**********		~~~~~~		***************************************
	MACHINES AND	A JE OOM OVECO	MUDAID BOOK	P		0	Al-b 4 0/	NT 0001/0+	Data: 0	40E 04 uOVCo
05/03/2007 12:42		AmtRec: 20ML,2X500	ML,LP,4LP #Contair	ners: 5		Scr:	Alpha: 1.80)E-03 uCi/Sa	Beta: 2.	43E-04 uCi/Sa
5 JWEPC-1-AF		25.60g,in								
17E070107-1-SAMP	I I I I II III DII					***				
E-1000000000000000000000000000000000000	100 March 100 Ma		5/15/15 //6 / 1			0	Al-l d ***	0001/0-	Data: 1	005 000:/0-
05/04/2007 11:30		AmtRec: 20ML,500ML	.,5XLP,4LP #Contair	ners: 8		Scr:	Alpha: 1.76	SE-03 uCi/Sa	Beta: - i	.69E-03 uCi/Sa
5 JWEPG-1-AD		25.10g,in								
J7E070107-2-SAMP 					****					
OF 10 A 10 O O O O O O O O O O O O O O O O O O		AmtRec: 20ML,500ML	.,4XLP #Containe	rc: 6		Scr:	Alpha: -4.6	3E-05 uCi/Sa	Rota: 8	51E-04 uCi/Sa
05/04/2007 08:58			,4XLP #Gomaine	15. 0		301.	Афпа4.0	3L-03 uO/3a	Dela. 0.	31L-04 dO//3a
7 JWEPK-1-AD		25.80g,in								
J7E070107-3-SAMP 						******		*******		
		AmtRec: 20ML,500Ml	_,4XLP #Containe	rs: 6		Scr:	Alpha: 4.3	8E-04 uCi/Sa	Beta: -1	.22E-04 uCi/Sa
00/04/2007 00.00		AITILITEC. ZUIVIL,3000WI	-,/LI #Oomane			001.	7 iipria. 4.0	J. J. 400 04	50.0. 1	
STL Richland Key	v: In - Initial Amt f	i - Final Amt, di - Diluted Am	t.s1-Sep1_s2-Se	p2 Page 1	ISV -	Insufficient Volur	ne for Analy	/sis	٧	VO Cnt: 7
Richland Wa.		eference Dt, ec-Enrichment (SamplePrep v4.

6/14/2007 2:19:35 PM Sample Preparation/Analysis Balance Id:1120482733 384868, Pacific Northwest National Laboratory, DH UNat Laser PrpRC5015 Pipet #: _ Pacific Northwest National Lab SS Total Uranium by KPA Sep1 DT/Tm Tech: 5I CLIENT: HANFORD AnalyDueDate: 06/18/2007 PM. Quote: SA . 57671 Batch: 7129616 WATER uq/L Sep2 DT/Tm Tech: SEQ Batch, Test: None Prep Tech: ,BockJ QC Tracer Count On | Off CR Analyst, Work Order, Lot, Initial Aliquot Count Detector Comments: Total (24hr) Circle Init/Date Sample DateTime Amt/Unit Amt/Unit Prep Date Time Min 8 JWEPP-1-AD 25.90a.in J7E070107-4-SAMP Beta: 6.57E-04 uCi/Sa 05/04/2007 09:56 AmtRec: 20ML.500ML.4XLP #Containers: 6 Alpha: 6.02E-05 uCi/Sa 9 JWEPQ-1-AF 27.00q,in J7E070107-5-SAMP Alpha: 2.43E-04 uCi/Sa Beta: -1.22E-04 uCi/Sa 05/04/2007 10:36 AmtRec: 20ML,500ML,4XLP #Containers: 6 Scr 26.40g,in 10 JWEPW-1-AE J7E070107-6-SAMP AmtRec: 20ML,2X500ML.LP.4LP #Containers: 5 Scr: Alpha: 4.40E-03 uCi/Sa 2.5E-01L Beta: 6.20E-04 uCi/Sa 05/04/2007 12:20 11 JWEP5-1-AD 27.90q,in J7E070109-2-SAMP Beta: 1.22E-04 uCi/Sa AmtRec: 20ML,500MLP.LP #Containers: 3 Scr: Alpha: 3.90E-07 uCi/Sa 05/04/2007 10:36 UNSF3765 12 JWEP5-1-AE-S 25.60q,in 06/14/07,pd J7E070109-2-MS 01/23/07.r Beta: 1.22E-04 uCi/Sa Scr: Alpha: 3.90E-07 uCi/Sa AmtRec: 20ML,500MLP,LP #Containers: 3 05/04/2007 10:36 13 JWEP6-1-AD 25.40g,in J7E070109-3-SAMP Beta: 5.67E-05 uCi/Sa Scr: Alpha: 1.98E-04 uCi/Sa AmtRec: 20ML,500MLP,LP #Containers: 3 05/04/2007 11:23 27.60q.in 14 JWEP8-1-AD J7E070109-4-SAMP Scr: Alpha: 1.02E-05 uCi/Sa Beta: 1.70E-04 uCi/Sa AmtRec: 20ML.500MLP.LP #Containers: 3 05/04/2007 11:23 WO Cnt: 14 Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 ISV - Insufficient Volume for Analysis Page 2 STL Richland

pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

Richland Wa.

Prep_SamplePrep v4.8.26

6/14/2007 2:19:37 PM Sample Preparation/Analysis Balance Id:1120482733 384868. Pacific Northwest National Laboratory . DH UNat Laser PrpRC5015 Pipet #: Pacific Northwest National Lab SS Total Uranium by KPA Sep1 DT/Tm Tech: 5I CLIENT: HANFORD AnalyDueDate: 06/18/2007 Batch: 7129616 PM, Quote: SA, 57671 WATER ug/L Sep2 DT/Tm Tech: SEQ Batch, Test: None Prep Tech: ,BockJ Work Order, Lot. Total Initial Aliquot QC Tracer Count Detector Count On | Off CR Analyst, Comments: Amt/Unit Prep Date (24hr) Circle Init/Date Sample DateTime Amt/Unit Time Min ld 15 JWH50-1-AD 25.60g,in J7E080313-1-SAMP 05/07/2007 09:36 AmtRec: 20ML.500ML.LP.2X4LP #Containers: 5 Scr: Alpha: 9.72E-04 uCi/Sa Beta: -2.42E-04 uCi/Sa 16 JWH50-1-AE-X 25.10g,in J7E080313-1-DUP 05/07/2007 09:36 AmtRec: 20ML.500ML.LP.2X4LP #Containers: 5 Scr: Alpha: 9.72E-04 uCi/Sa Beta: -2.42F-04 uCi/Sa 17 JWL3N-1-AA-B 26.00q.in J7E090000-616-BLK Scr: 05/07/2007 09:36 AmtRec: #Containers: 1 Alpha: Beta: 18 JWL3N-1-AC-C 26.00g,in UNSF3766 06/14/07,pd J7E090000-616-LCS 01/23/07,r 05/07/2007 09:36 AmtRec: #Containers: 1 Scr: Beta: Alpha: UNSC1702 19 JWL3N-1-AD-C 25.50q,in 05/17/07.pd J7E090000-616-LCS 04/28/06.r 05/07/2007 09:36 AmtRec: #Containers: 1 Scr: Alpha: Beta: Comments: JWEPQ-SAMP Comments PHLZ. 5 93 6-14-07 All Clients for Batch: 384868, Pacific Northwest National Laboratory Pacific Northwest National Lab, SA, 57671 JWCG11AD-SAMP Constituent List: Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 ISV - Insufficient Volume for Analysis WO Cnt: 19 STL Richland Page 3 Prep_SamplePrep v4.8.26 pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added Richland Wa.

6/1	1	/クロ	07	2.1	9:42	PM
U/I	~+/	~~	w	C . I	J.46	1 1VI

Sample Preparation/Analysis

Balance Id:1120482733 DH UNat Laser PrpRC5015 Pipet #: ____

AnalyDueDate: 06/18/2007

SS Total Uranium by KPA **5I CLIENT: HANFORD**

Sep1 DT/Tm Tech:

Batch: 7129616

ug/L

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,BockJ

Work Order, Sample DateT	' 11	1	Initial Aliquo Amt/Unit	11	Tracer Coun o Date Time M	it Detector	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
Uranium WEP51AE-MS:	RDL:1.44E-01	ug/L	LCL:	UCL:	RPD:				
WL3N1AA-BLK:									
Uranium	RDL:1.44E-01	ug/L	LCL:	UCL:	RPD:				
JWL3N1AC-LCS:									
Uranium	RDL:0.144343	ug/L	LCL:70	UCL:130	RPD:20				
JWL3N1AD-LCS:									
Uranium	RDL:0.144343	ug/L	LCL:70	UCL:130	RPD:20				
WCG11AD-SAMP	Calc Info:								
Uncert L	evel (#s).: 2	Decay to	o SaDt: Y	Blk Subt.:	N Sci.Not.:	Y ODRs: B			
WEP51AE-MS:									
Uncert L	evel (#s).: 2	Decay to	SaDt: Y	Blk Subt.:	N Sci.Not.:	Y ODRs: B			
WL3N1AA-BLK:									
Uncert L	evel (#s).: 2	Decay to	o SaDt: Y	Blk Subt.:	N Sci.Not.:	Y ODRs: B			
WL3N1AC-LCS:									
Uncert L	evel (#s).: 2	Decay to	o SaDt: Y	Blk Subt.:	N Sci.Not.:	Y ODRs: B			
WL3N1AD-LCS:									
Uncert L	evel (#s).: 2	Decay to	o SaDt: Y	Blk Subt.:	N Sci.Not.:	Y ODRs: B			
						Approved By		Date:	

Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 STL Richland Page 4 pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added Richland Wa.

ISV - Insufficient Volume for Analysis

WO Cnt: 19 Prep_SamplePrep v4.8.26 6/20/2007 10:50:54 AM

ICOC Fraction Transfer/Status Report ByDate: 6/20/2006, 6/25/2007, Batch: '7129616', User: *ALL Order By DateTimeAccepting

Batch Wor	k Ord CurStat	us A	ccepting		Comments
129616	TIOTHOREUM TOWNSOCIUM		THE PARTY OF THE P	tti Antigilli (1800-), mai taoti kada atau maka da mara da ta pangapan mapayanyan yang atau pangapatah da da m	
C Cnt1C Bock		BockJ	6/14/2007 2:08:	:40 PM	
SC .		wagarr	IsBatched	5/9/2007 4:41:37 PM	ICOC_RADCALC v4.8.26
C		BockJ	InPrep	6/14/2007 2:08:40 PM	RICH-RC-5014 Revision 7
C		BockJ	Prep1C	6/14/2007 2:19:39 PM	RICH-RC-5015 REVISION 6
C		AshworthA	InPrep2	6/18/2007 8:48:42 AM	RICH-RC-5015 REVISION 6
C		AshworthA	Prep2C	6/19/2007 10:06:05 AM	RICH-RC-5015 REVISION 6
C		NelsonT	Cnt1C	6/19/2007 3:18:03 PM	RICH-RC-5058 REV 7
C BockJ		BockJ	6/14/2007 2:19:	:39 PM	
.C AshworthA			6/18/2007 8:48:		
С		AshworthA	6/19/2007 10:0	6:05	
С		NelsonT	6/19/2007 3:18:	:03 PM	

AC: Accepting Entry; SC: Status Change